

# Distribution Apparatus

## Moulded Case Circuit Breaker



Page B02  
**YCM1**  
Moulded Case Circuit Breaker



Page B10  
**YCM1LE**  
Earth Leakage Circuit Breaker



Page B15  
**YCM7**  
Moulded Case Circuit Breaker



Page B24  
**YCM7RE**  
Electronic Adjustable Circuit Breaker



Page B30  
**YCM7T/A, RT**  
Thermal Magnetic Adjustable Circuit Breaker



Page B35  
**YCM8**  
Moulded Case Circuit Breaker



Page B42  
**YCM8LE**  
Moulded-case Residual-current Circuit Breaker



Page B45  
**YCM8RT**  
Moulded-case Circuit Breaker of Thermomagnetic Adjustable Type



Page B48  
**YCM8E**  
Electronic Adjustable Circuit Breaker

## Air Circuit Breaker



Page B59  
**YCW1**  
Air Circuit Breaker



Page B75  
**YCW3**  
Air Circuit Breaker

# Distribution Apparatus

## Automatic Transfer Switch



Page B93  
**YCQ1B**  
Automatic Transfer Switch



Page B95  
**YCQ3B**  
Automatic Transfer Switch



Page B97  
**YCQ6B**  
Automatic Transfer Switch



Page B101  
**YCQ9M**  
Automatic Transfer Switch



Page B106  
**YCQ2**  
Automatic Transfer Switch



Page B109  
**YCS1**  
Automatic Transfer Switch



Page B113  
**YCQ4**  
Automatic Transfer Switch



Page B124  
**YCHGLZ1-125-3150A**  
Isolation Switch

## Isolation Switch



Page B128  
**YCHGL-63-3150A**  
Load-isolation Switch

## Low Voltage Fuse



Page B138  
**NT**  
Low Voltage Fuse

## Fuse Switch-Disconnecter



Page B140  
**YCHR17**  
Fuse Switch-Disconnecter





## Distribution Apparatus

### YCM1 MCCB

#### Function and features

1. Temperature: -5°C ~ +40°C; the average value within 24h shall not exceed +35°C. For the circuit breaker with thermo-magnetic release, +40°C is set to be the standard temperature for ratings. For temperature not between -5°C ~ +40°C, please contact us for temperature compensation correction;
2. Altitude: not exceed 2000m (Please contact with us for reduction coefficient if altitude at the mounted site exceed 2000m)
3. Pollution grade: Grade 3;
4. Air conditions:  
At mounting site, relative humidity not exceed 50% at the max temperature of +40°C, higher relative humidity is allowable under lower temperature. For example, RH could be 90% at +20°C, special measures should be taken to occurrence of dews.

#### Specifications

Type		YCM1-63	YCM1-125	YCM1-160	YCM1-250	YCM1-400	YCM1-630	YCM1-800	YCM1-1250	YCM1-1600	
Poles	P	3, 3, 4	2, 3, 4	3P	2, 3, 4	3, 4	3, 4	3, 4	3	3	
Rated current In	A	10, 16, 20, 25, 32, 40, 50, 63	10, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125	20, 25, 32, 40, 50, 63, 80, 100, 125, 140, 160	100, 125, 140, 160, 180, 200, 225, 250	225, 250, 315, 350, 400	400, 500, 630	630, 700, 800	800, 1000, 1250	1600	
Rated insulation voltage Ui	V	500	800								
Rated impulse withstand voltage Uimp	V	6000	8000								
Rated operation voltage Ue	V	AC400	AC400/690								
Breaking capacity class		L, M	L, M	L, M	L, M	L, M	L, M	M	M	M	
Limit short-circuit breaking capacity Icu	kA	400V	35, 50	35, 50	50	35, 50	50, 65	50, 65	75	85	85
		690V		8, 10	10	8, 10	10, 20	10, 20	30	25	25
Working short-circuit breaking capacity Ics	kA	400V	22, 25	22, 25	25	22, 25	35, 42	35, 42	50	42.5	42.5
		690V		4, 5	5	4, 5	5, 10	5, 10	15	12.5	12.5
Arcing distance	mm	50				100					
Operating frequency	Electrical life	1500	1500	1500	1000	1000	1000	500	500	500	
	mechanical life	8500	8500	8500	7000	4000	4000	2500	2500	2500	

## Distribution Apparatus

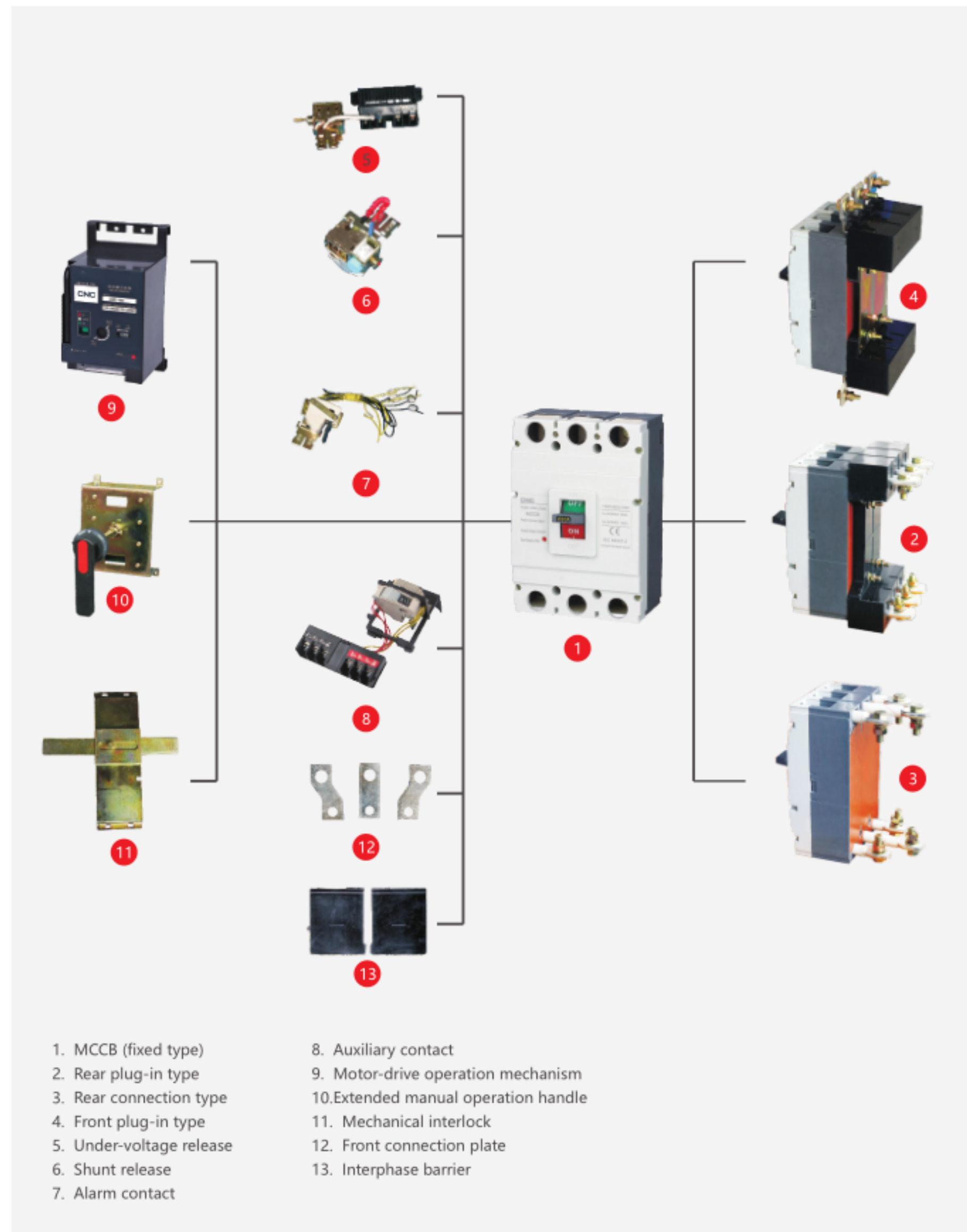
### YCM1 MCCB

#### Release method and accessories code

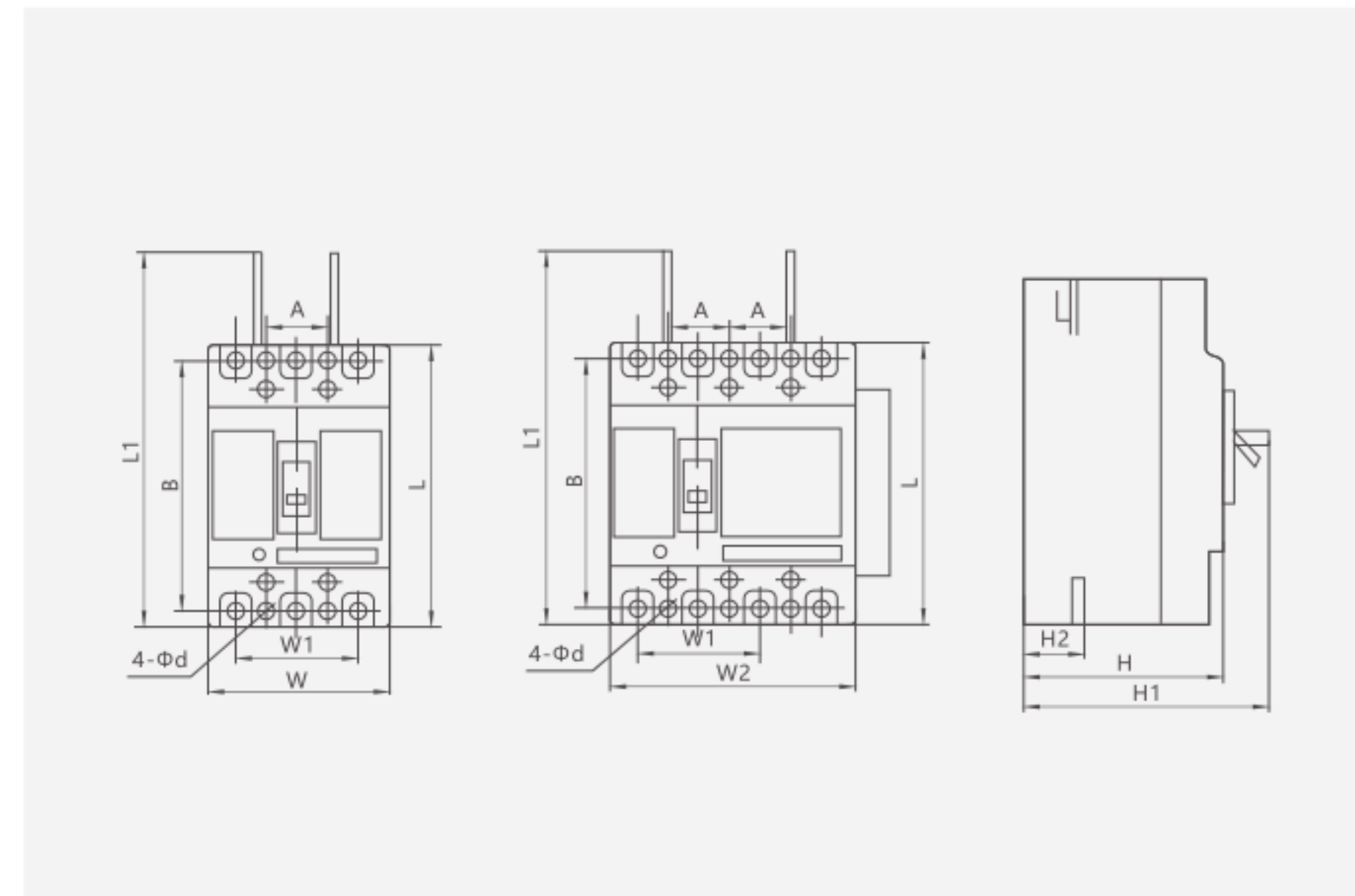
Table 1

Accessories name	Release method and accessories code		Accessories installation and down-leads			
	Electromagnetic release	Complex release	YCM1-63 YCM1-100	YCM1-160 YCM1LE-225	YCM1-400 YCM1-630	YCM1-800 YCM1-1250
Without parts	200	300				
Alarm contact	208	308				
Shunt release	210	310				
Auxiliary contact	220	320				
Undervoltage release	230	330				
Shunt release, Auxiliary contact	240	340				
Shunt release, under-voltage release	250	350				
Secondary auxiliary contact	260	360				
Auxiliary contact, Undervoltage release	270	370				
Shunt release, Alarm contact	218	318				
Auxiliary contact, Alarm contact	228	328				
Undervoltage release, Alarm contact	238	338				
Shunt release, Auxiliary contact, Alarm contact	248	348				
Secondary auxiliary contact, Alarm contact	268	368				
Auxiliary contact, Undervoltage release, Alarm contact	278	378				

Note: left right Alarm contact □ Shunt release ● Auxiliary contact ■ Undervoltage release ○



Overall and mounting dimensions(mm)

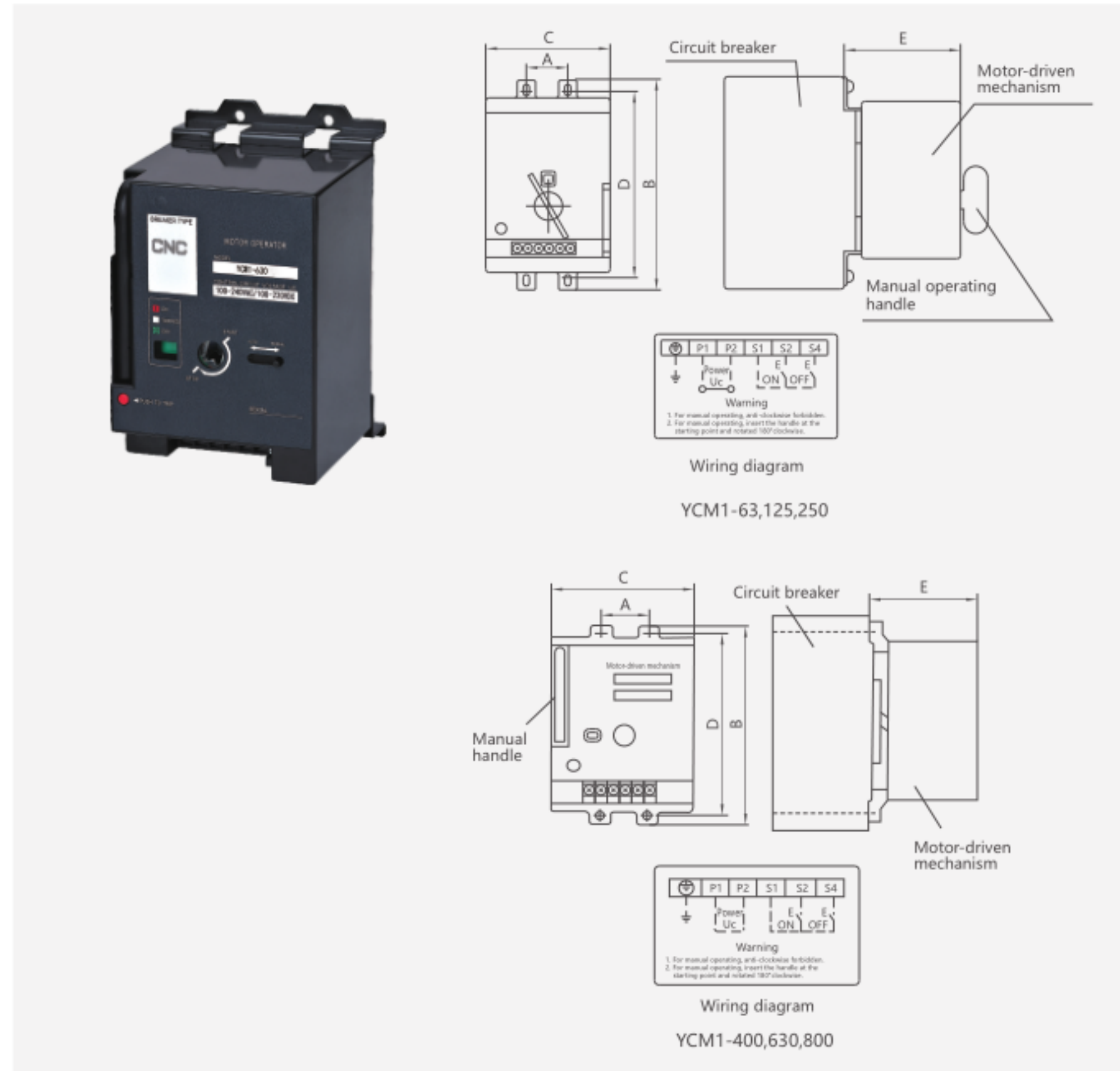


Type	Overall size (mm)							Installation size (mm)			
	W	L	H	W1	W2	L1	H1	H2	A	B	Φd
YCM1-63L	78	135	74	50	-	156	92	28	25	117	3.5
YCM1-63M	78	135	82	50	103	156	100	28	25	117	3.5
YCM1-125L	92	150	68	60	-	200	88	24	30	129	4.5
YCM1-125M	92	150	86	60	122	200	105	24	30	129	4.5
YCM1-250L	107	165	86	70	-	215	110	24	35	126	5
YCM1-250M	107	165	103	70	142	215	127	24	35	126	5
YCM1-400L	150	257	107	96	198	357	162	38	44	194	7
YCM1-400M	150	257	107	96	198	357	162	38	44	194	7
YCM1-630L	182	271	112	116	240	370	165	42	58	200	7
YCM1-630M	182	271	112	116	240	370	165	42	58	200	7
YCM1-800M	210	280	116	140	280	385	168	42	70	243	7
YCM1-1250M	210	406	141	140	-	715	193	60	70	375	11



**YCM1 MCCB**

Overall and mounting dimensions(mm)



**YCM1 MCCB**

Model	Matched circuit breaker	Dimensions					Ue(V)	Ie(A)	Mechanical life (times)	Motor power (W)
		A	B	C	D	E				
YCM1-63	YCM1	25	117	74	102	79	K1	≤0.5	14000	14
YCM1-100	YCM1	30	129	90	116	77	K1	≤0.5	14000	14
YCM1-225	YCM1	35	126	90	116	77	K1	≤0.5	14000	14
YCM1-400	YCM1	44	194	130	176	115	K2	≤2	5000	35
YCM1-630	YCM1	58	200	130	176	115	K2	≤2	5000	35
YCM1-800	YCM1	70	243	130	176	115	K2	≤2	5000	35
YCM1-1250	YCM1	70	300	130	176	115	K2	≤2	5000	35

## Distribution Apparatus

### YCM1 MCCB

Under voltage release	Rated working voltage Ue V	AC230V AC400V
	Acting voltage V	(0.35-0.7)Ue
	Reliable close voltage V	(0.85~1.1)Ue
Shunt release	Rated control power voltage Us V	AC230V AC400V DC24V DC110V DC220V
	Acting voltage V	(0.7~1.1)Ue
Auxiliary, Alarm contact	Frame current Inm	Rated thermal current Ith
	Inm ≤ 225	3A
	Inm ≥ 400	6A

## Distribution Apparatus

### YCM1LE Earth Leakage MCCB

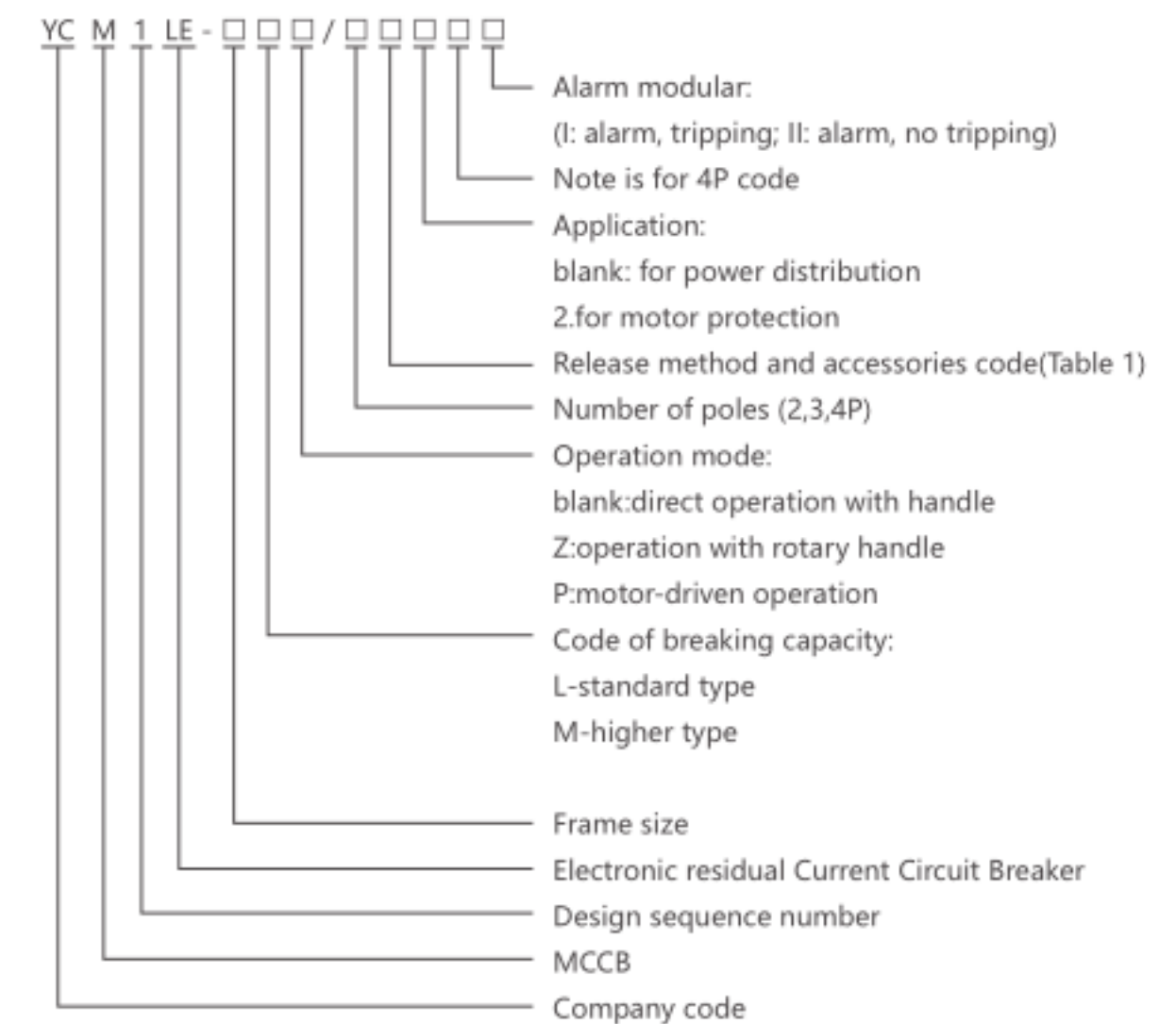


#### General

YCM1LE series earth leakage circuit breaker (herein after called circuit breaker) is applied for the power distribution network of AC 50Hz, rated current 630A. The circuit breaker can protect people against indirect contact with dangerous electric current and prevent fire disaster caused by insulation fault and single-phase ground fault. It can be used to distribute electric power and protect power equipment against overload and short circuit. The circuit breaker can change the circuit and start motor infrequently. The rated residual operating current and the maximum off-time can be adjusted on-site according to actual situation, the circuit breaker can be customized alarm function and no tripping function.

The YCM1LE complies with standard of IEC60947-2.

#### Type designation



Note:

A: Without current release components, N-Pole is always at making status, not makes and breaks with other three poles;

B: Without current release components, N-Pole makes with the other three poles (N-Pole first makes then breaks);



## YCM1LE Earth Leakage MCCB

### Specifications

Type		YCM1LE-125			YCM1LE-250			YCM1LE-400		YCM1LE-630		
Frame current $I_{nm}(A)$		125			250			400		630		
Rated current $I_n(A)$		10, 16, 20, 25, 32, 40 50, 63, 80, 100, 125			100, 125, 140, 160 180, 200, 225, 250			225, 315, 350, 400		400, 500, 630		
Pole		2	3	4	2	3	4	3	4	3	4	
Rated insulation voltage $U_i(V)$		AC800										
Rated working voltage $U_e(V)$		AC400										
Rated impulse withstand voltage $U_{imp}(V)$		8000										
Arcing-over distance (mm)		50					100					
Breaking ability level		L	M	L	M	L	M	L	M	L	M	
Rated ultimate short-circuit breaking capacity $I_{cu}(kA)$		35	50	35	50	50	65	50	65	50	65	
Rated working short-circuit breaking capacity $I_{cs}(kA)$		22	25	22	25	35	42	35	42	35	42	
Rated residual short-circuit breaking capacity		7.5	12.5	7.5	12.5	12.5	13.5	12.5	13.5	12.5	13.5	
Rated residual operating current $I_{\Delta n}(mA)$		No time-delay type	30/100/500 100/300/500			30/100/500 100/300/500			100/300/500		300/500/1000	
		Time-delay type	100/300/500			100/300/500			100/300/500		300/500/1000	
Rated residual unoperating current $I_{\Delta n}(mA)$		1/2 $I_{\Delta n}$		1/2 $I_{\Delta n}$		1/2 $I_{\Delta n}$		1/2 $I_{\Delta n}$		1/2 $I_{\Delta n}$		
Operating performance (times)		Power on	1500			1000			1000		1000	
		Power off	8500			7000			4000		4000	
		Total times	10000			8000			5000		5000	
Residual current protection operating time		$I_{\Delta n}$		$2I_{\Delta n}$		$5I_{\Delta n}$		$10I_{\Delta n}$		$10I_{\Delta n}$		
Max. breaking time(s)		No time-delay type	0.2			0.1			0.04		0.04	
		Time-delay type	0.4/1			0.4/1			0.3/1		0.3/1	

## YCM1LE Earth Leakage MCCB

### Release method and accessories code

Table 1

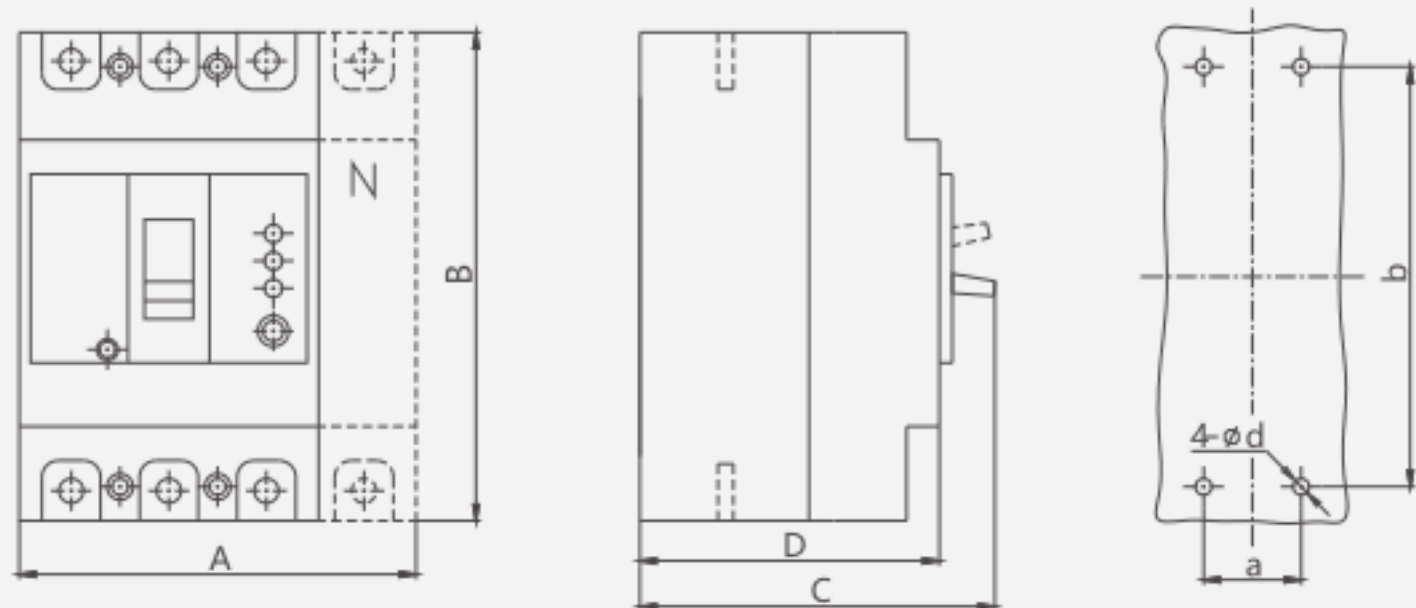
Accessories name	Release method and accessories code		Accessories installation and down-leads			
	Electromagnetic release	Complex release	YCM1LE-125/3 YCM1LE-250/3	YCM1LE-125/4 YCM1LE-250/4	YCM1LE-400/3 YCM1LE-630/3	YCM1LE-400/4 YCM1LE-630/4
Without parts	200	300				
Alarm contact	208	308				
Shunt release	210	310				
Auxiliary contact	220	320				
Undervoltage release	230	330				
Shunt release, Auxiliary contact	240	340	—		—	
Secondary auxiliary contact	260	360				
Auxiliary contact, Undervoltage release	270	370	—		—	
Shunt release, Alarm contact	218	318	—		—	
Auxiliary contact, Alarm contact	228	328				
Undervoltage release, Alarm contact	238	338	—		—	
Shunt release, Auxiliary contact, Alarm contact	248	348	—		—	
Secondary auxiliary contact, Alarm contact	268	368	—		—	
Auxiliary contact, Undervoltage release, Alarm contact	278	378	—		—	

Note: left right Alarm contact □ Shunt release ● Auxiliary contact ■ Undervoltage release ○

**YCM1LE Earth Leakage MCCB**

Overall and mounting dimensions(mm)

**B**



Type	Pole	Overall size (mm)				Installation size (mm)		
		A	B	C	D	a	b	Φd
YCM1LE-125	3	92	150	110	92	30	129	4.5
	4	122				60		
YCM1LE-250	3	107	165	110	90	35	126	4.5
	4	142				70		
YCM1LE-400	3	150	257	146.5	106.5	44	194	7
	4	198				94		
YCM1LE-630	3	210	280	155	115.5	70	243	7
	4	280				140		

# YCM7 Series

## Distribution Apparatus



- Multi-function choices
- Design for small size
- Modular accessories for easy and convenient installation





### General

YCM7, YCM7RT, YCM7T/A, YCM7RE series circuit breaker is a new generation of breaker.

This breaker is applied for the distribution network of AC 50Hz, rated insulation voltage 800V, rated working current up to 800A, which is for electric energy distribution, circuit protection, protection power supply facility from destroying by the fault of overloading, short circuit and undervoltage, meanwhile it is also used for protection from unfrequent starting, over loading, short circuit and undervoltage of the motor.

This breaker has such characteristics as high short circuit interrupting capacity, short arcing and etc., which is a ideal product for users. This breaker can be installed vertically, and also horizontally

This breaker comply with standard IEC60947-2.

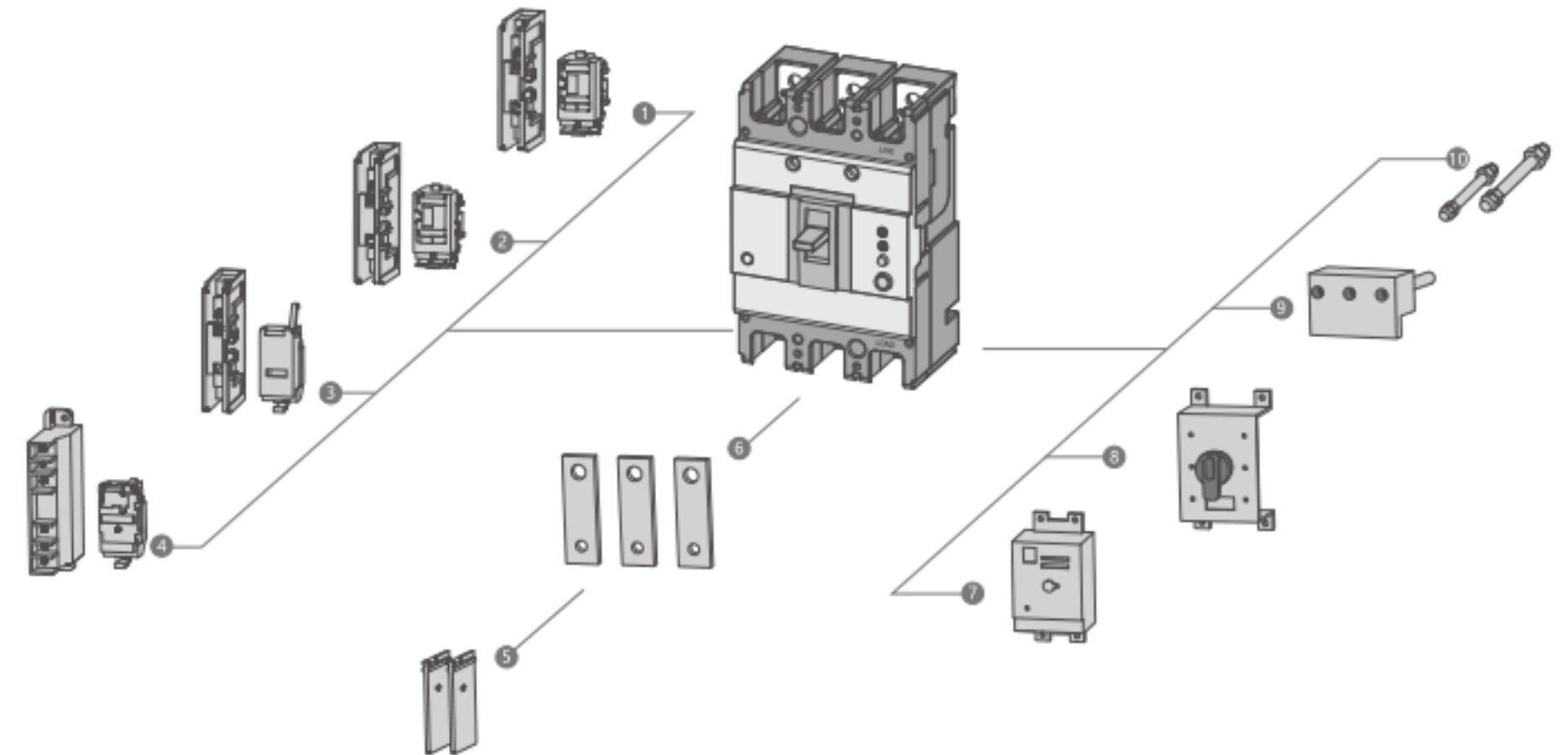
### Product Features

1. Miniaturization design  
Product volume miniaturization can meet the customer's personality needs of the product installation size.
2. Size uniform  
The same shell level, different breaking capacity (S, M), different functions (air, leakage) product installation size is completely consistent.
3. The function of the reasonable parameter setting  
Circuit breaker can realize long-time delay overload inverse time, short circuit instantaneous action protection functions such as parameter setting, users can set their own protective properties required, the distribution network is used in the circuit breaker on the lower level with more reasonable.

### Suitable Working Environment and Mstallation Condition

1. Altitude less than 2000m
2. Ambient medium temperature is from -5°C to +40°C (+45°C for shipping product)
3. Humidity resistance
4. Bacteria resistance
5. Nuelear radiation resistance
6. Max lean degree is 22.5 degree.
7. Can operate normally when it comes to vibrataion of ship.
8. Can operate normally when it comes to earthquake(4g).
9. The medium should be no risk of blasting and can't erode the metal and damage insulating gas as well as conductive dust.
10. Work in the places where is no rain and snow.

### Circuit Breaker Component



- |                         |                                     |
|-------------------------|-------------------------------------|
| 1. Auxiliary contact    | 6. Front connection plate           |
| 2. Alarm contact        | 7. Motor driven operation mechanism |
| 3. Shunt release        | 8. Extended manual operation handle |
| 4. Undervoltage release | 9. Plug in rear connection          |
| 5. Interphase barrier   | 10. Rear connection plate           |

## Distribution Apparatus

### YCM7 MCCB

#### Selection Guide

YCM7 - 125 M P / 4 300 - 125A 2 A Q1 D1 Q 2

Type	Frame Inm	Breaking capacity ICU/ICS(kA)	Operation	Poles																		
YCM7	125	M	P	4																		
MCCB	125, 160, 250, 630, 800	<table border="1"> <tr> <td>125</td> <td>S</td> <td>M</td> </tr> <tr> <td>160</td> <td>15/8</td> <td></td> </tr> <tr> <td>250</td> <td>25/18</td> <td></td> </tr> <tr> <td>400</td> <td>25/18</td> <td></td> </tr> <tr> <td>630</td> <td>35/25</td> <td>50/35</td> </tr> <tr> <td>800</td> <td></td> <td>50/35</td> </tr> </table>	125	S	M	160	15/8		250	25/18		400	25/18		630	35/25	50/35	800		50/35	P: Motor-driven Z: Rotary handle W: Direct	3: 3P 4: 4P
125	S	M																				
160	15/8																					
250	25/18																					
400	25/18																					
630	35/25	50/35																				
800		50/35																				
Remark:																						
125 Frame upgrade from 63																						
160 Frame upgrade from 125																						
250 Frame upgrade from 225																						
630 Frame upgrade from 400																						

Tripping mode and inner accessory	Rated current(A)	Application	Option for 4P MCCB
300	125A	2	A
First figure means tripping unit way 2: Only with magnetic release 3: Thermal release+,magnetic release body	125 63, 80, 100, 125 160 63, 80, 100, 125, 140, 160 250 100, 125, 140, 160, 180, 200, 225, 250 400 250, 315, 350, 400 630 500, 630 800 500, 630, 700, 800	1. Power distribution 2. Motor-protection	A: N pole without protection, N pole is always ON B: N pole without protection, N pole makes with the other three poles
Remark: The last two figures means accessory code (see accessories list)			

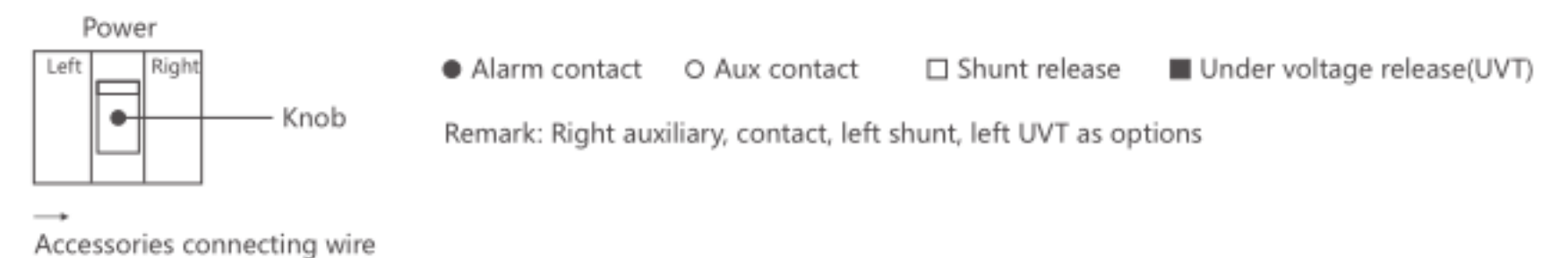
Accessory voltage	Motor-driven operation voltage	Connection	Connection plate																													
Q1	D1	Q	2																													
<table border="1"> <tr> <td>UVT</td> <td>Shunt</td> <td>Auxiliary</td> </tr> <tr> <td>Q1: AC220V</td> <td>F1: AC220V</td> <td>J1: AC125V</td> </tr> <tr> <td>Q2: AC240V</td> <td>F2: AC380V</td> <td>J2: AC250V</td> </tr> <tr> <td>Q3: AC380V</td> <td>F3: DC110V</td> <td>J3: DC125</td> </tr> <tr> <td>Q4: AC415V</td> <td>F4: DC24V</td> <td>J4: DC24V</td> </tr> </table>	UVT	Shunt	Auxiliary	Q1: AC220V	F1: AC220V	J1: AC125V	Q2: AC240V	F2: AC380V	J2: AC250V	Q3: AC380V	F3: DC110V	J3: DC125	Q4: AC415V	F4: DC24V	J4: DC24V	<table border="1"> <tr> <td>DC1</td> <td>DC3</td> </tr> <tr> <td>D1: AC220V</td> <td>D5: AC220V</td> </tr> <tr> <td>D2: AC230V</td> <td>D6: AC110V</td> </tr> <tr> <td>D3: AC380V</td> <td>D7: DC220V</td> </tr> <tr> <td>D4: AC400V</td> <td>D8: DC110V</td> </tr> <tr> <td></td> <td>D9: AC110~240V</td> </tr> <tr> <td></td> <td>D10: DC100~220V</td> </tr> </table>	DC1	DC3	D1: AC220V	D5: AC220V	D2: AC230V	D6: AC110V	D3: AC380V	D7: DC220V	D4: AC400V	D8: DC110V		D9: AC110~240V		D10: DC100~220V	Q: Front H: Rear C: Plug-in	1: W/O 2: W
UVT	Shunt	Auxiliary																														
Q1: AC220V	F1: AC220V	J1: AC125V																														
Q2: AC240V	F2: AC380V	J2: AC250V																														
Q3: AC380V	F3: DC110V	J3: DC125																														
Q4: AC415V	F4: DC24V	J4: DC24V																														
DC1	DC3																															
D1: AC220V	D5: AC220V																															
D2: AC230V	D6: AC110V																															
D3: AC380V	D7: DC220V																															
D4: AC400V	D8: DC110V																															
	D9: AC110~240V																															
	D10: DC100~220V																															

## Distribution Apparatus

### YCM7 MCCB

#### Inner Accessories

Model	YCM7-125	YCM7-160	YCM7-250	YCM7-400/630	YCM7-800
Breaking capacity	S	S	S	S, M	M
No. of poles	3,4	3,4	3,4	3,4	3,4
Code	Accessory name				
208, 308	Alarm contact				
210, 310	Shunt release				
220, 320	Auxiliary contact				
230, 330	Under-voltage release				
240, 340	Shunt auxiliary contact				
260, 360	Two groups auxiliary contacts				
270, 370	Auxiliary contact UVT				
218, 318	Shunt alarm contact				
228, 328	Auxiliary alarm contact				
238, 338	UVT alarm contact				
248, 348	Shunt auxiliary alarm contact				
268, 368	Two groups aux alarm contact				
278, 378	Aux contact UVT alarm contact				
280, 380	Two groups aux contact and shunt				











## Distribution Apparatus

### YCM7 MCCB

#### Technical Data

Type	YCM7-125S	YCM7-160S	YCM7-250S
Frame(A)	125	160	250
Number of poles	3,4	3,4	3,4
Products			
Rated current(A)	63, 80, 100, 125	63, 80, 100, 125, 140, 160	100, 125, 140, 160, 180, 200, 225, 250
Rated voltage Ue(V)	AC400V/AC690V	AC400V/AC690V	AC400V/AC690V
Rated insulation voltage Ui(V)	AC800V	AC800V	AC800V
Short-circuit breaking capacity Icu/1cs(kA)	AC400V 15/8	25/18	25/18
Operation life (cycle)	ON	1000	1000
	OFF	7000	7000
Motor-driven operation	•	•	•
External rotary handle	•	•	•
Automatic tripping device	Thermo-magnetic	Thermo-magnetic	Thermo-magnetic

Type	YCM7-400S/M	YCM7-630M	YCM7-800M
Frame(A)	400	630	800
Number of poles	3,4	3,4	3,4
Products			
Rate current(A)	250, 315, 350, 400	500, 630	500, 630, 700, 800
Rated voltage Ue(V)	AC400V/AC690V	AC400V/AC690V	AC400V/AC690V
Rated insulation voltage Ui(V)	AC800V	AC800V	AC800V
Short-circuit breaking capacity Icu/1cs(kA)	AC400V 35/25 50/35	50/35	50/35
Operation life (cycle)	ON	1000	500
	OFF	4000	2500
Motor-driven operation	•	•	•
External rotary handle	•	•	•
Automatic tripping device	Thermo-magnetic	Thermo-magnetic	Thermo-magnetic

• Means accessory as option

## Distribution Apparatus

### YCM7 MCCB

#### Characteristic Feature

1. Inverse time breaking action property of the over current release of the breaker (for power distribution) at the status that all poles and electrified simultaneously under abrent temp 40°C.

Test current	Current time	Conventional time		Initial status
		$I_n \leq 63$	$63 < I_n$	
Conventional non-trip current	1.05	$\geq 1h$	$\geq 2h$	Cold status
Conventional trip current	1.30	$< 1h$	$< 2h$	Hot status

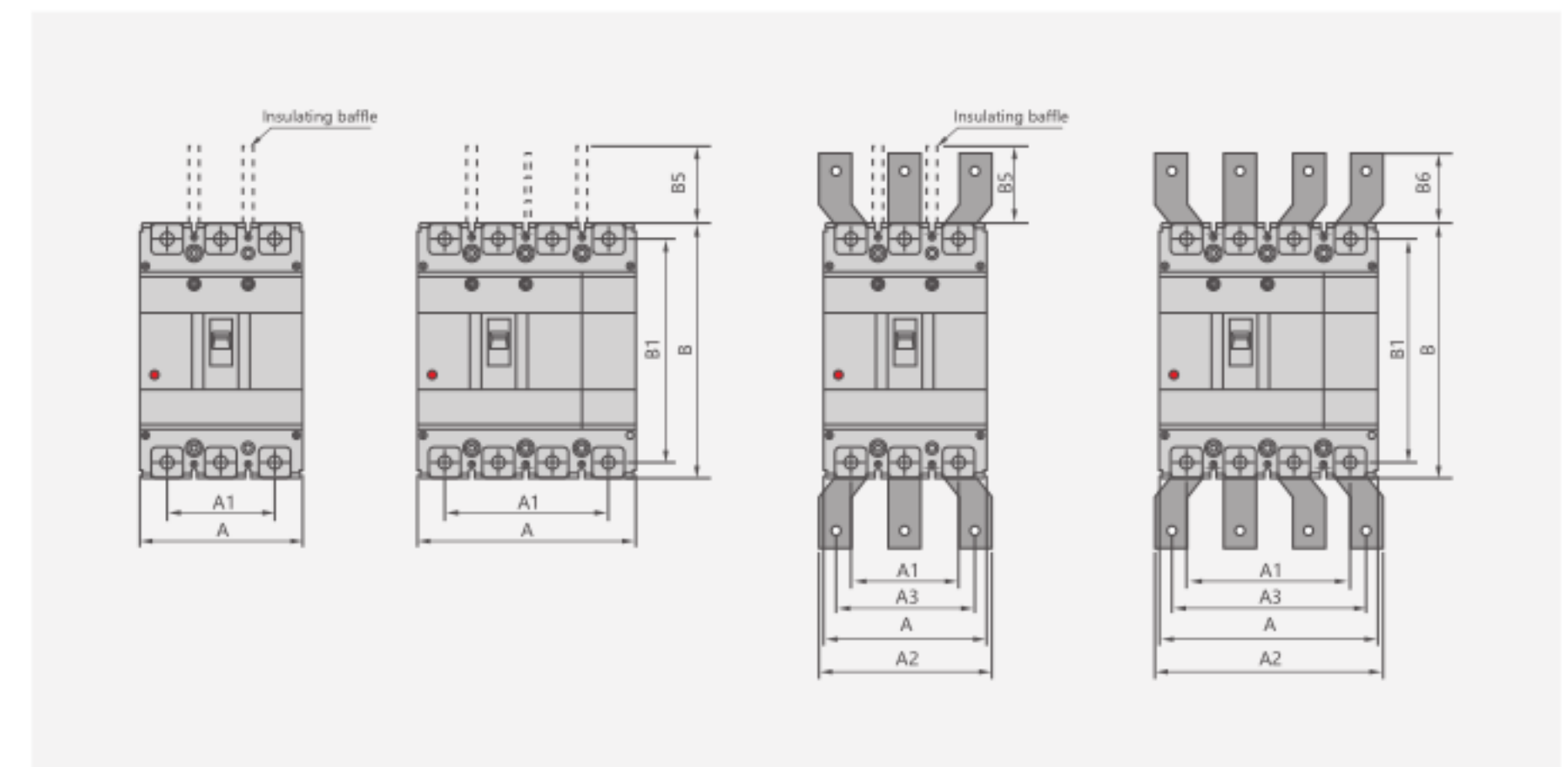
2. When ambient temperature is  $\pm 40^\circ\text{C}$  for electromotor protection breaker, power on for every pole, inverse time limit characteristic of no temperature compensation is in the following sheet.

Test current	Current time	Conventional time	Initial status
		$I_n \leq 800$	
Conventional non-trip current	1.0	$\geq 2h$	Cold status
Conventional trip current	1.2	$< 2h$	Hot status

3. Action property of the short-circuit release of the breaker

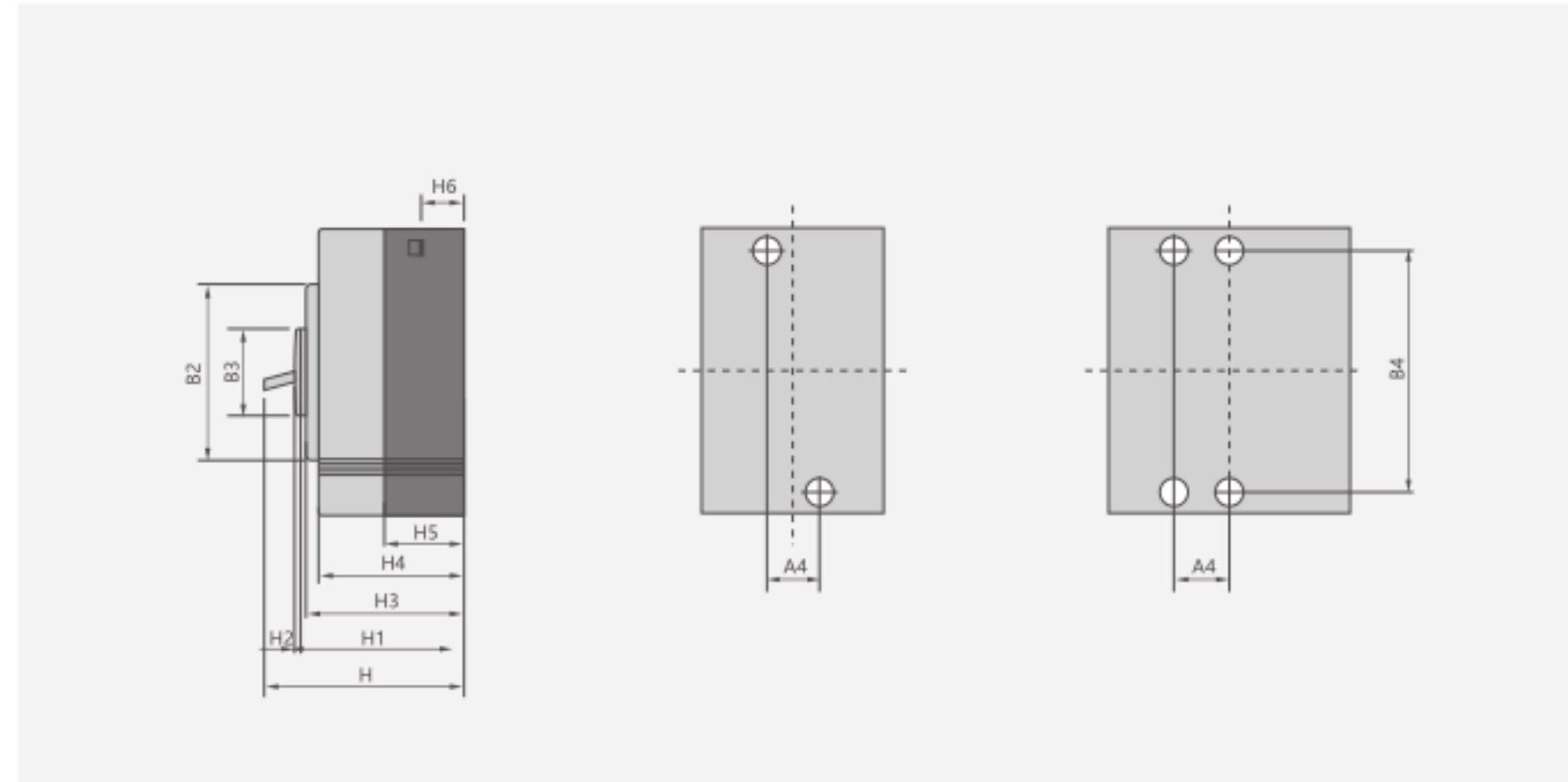
- Instant trip (for power distribution)  $I = 10I_n$
- Instant trip (for motor protection)  $I = 12I_n$
- Current setting accuracy  $\pm 20\%$

#### Front Connection & Overall



**YCM7 MCCB**

**Outline Overall and Installing Dimensions**

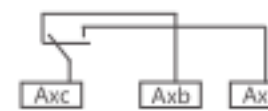
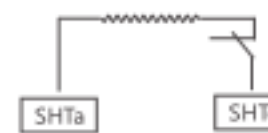
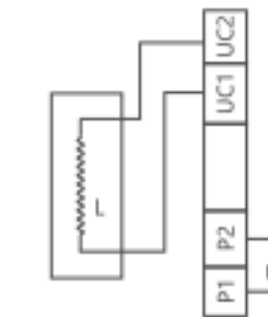


Moulded case Circuit breaker	Overall dimensions																			Installing dimensions		Bolt		
	A		A1		A2		A3		B	B1	B2	B3	B5	B6	H	H1	H2	H3	H4	H5	H6		A4	B4
	3P	4P	3P	4P	3P	4P	3P	3P																
YCM7-125S	75	100	50	75	-	-	-	-	130	114	85	50	50	-	92	72	4	68	61	41	24	25	111	M8/M6
YCM7-160S	90	120	60	90	-	-	-	-	155	134	103	50	50	-	94	72	4	68	61	41	24	30	132	M8
YCM7-250S	105	140	70	105	-	-	-	-	165	144	103	50	100	-	96	72	4	68	61	46	24	35	126	M8
YCM7-400S	140	185	88	132	140	196	112	168	257	230	179	90	110	43	155	107	5	105	97	64	36	44	194	M10
YCM7-400M	140	185	88	132	140	196	112	168	257	230	179	90	110	43	155	107	5	105	97	64	36	44	194	M10
YCM7-630M	140	185	88	132	140	196	112	168	257	230	179	90	110	42	155	107	5	105	97	64	36	44	194	M10
YCM7-800M	210	280	140	210	180	250	140	210	275	243	192	90	110	87	155	107	5	104	97	65	24	70	242.5	M12

**YCM7 Series MCCB Accessories**

**Internal accessories**

Internal accessories of YCM7, YCM7RT, YCM7E series include undervoltage release, shunt release and auxiliary alarm release, their main technical parameters and wiring diagram are as follows:



Undervoltage release	
Rated voltage of power supply	Main features
AC220, AC240 AC380, AC415	<p>A. Undervoltage release should act when voltage drops to within 70% and 35% of the rated voltage.</p> <p>B. The undervoltage release should not be able to close to prevent the circuit breaker from closing when voltage is lower than 35% of the rated voltage.</p> <p>C. The undervoltage release should ensure to be closed and ensure reliable closing of the circuit breaker when voltage is equal to or greater than 85% of the rated voltage.</p>
Shunt release	
Rated voltage of power supply	Main features
DC24, DC110 AC220, AC380	Shunt release can work reliably when the rated voltage value is at 70% and 110%.
Auxiliary alarm contact	
Rated voltage of power supply	Main features
Auxiliary switch	Shunt release can work reliably when the rated voltage value is at 70% and 110%.
AC 125V 5A, AC 250V 3A DC 125V0.4A, DC 125V0.2A	
Alarm switch	Provide differentiated signals for the circuit breaker at "normal work" and "fault free trip" positions.
AC 125 5A, AC 250V 3A DC 125V0.4A, DC 125V 0.2A	
Auxiliary alarm switch	Provide differentiated signals for the circuit breaker at "close", "open" and "fault free trip" positions.
AC 125V 5A, AC 250V 3A DC 125V0.4A,DC125V0.2A	



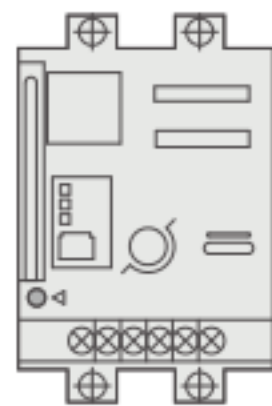
## Distribution Apparatus

### YCM7 Series MCCB Accessories

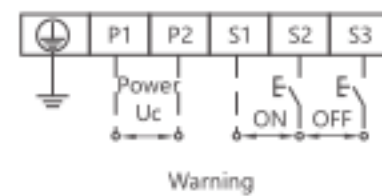
#### External accessories

The main technical parameters, dimensions and installation diagrams of external accessories for YCM7, YCM7RT and YCM7E series are as follows:

DC3 electric operating mechanism.

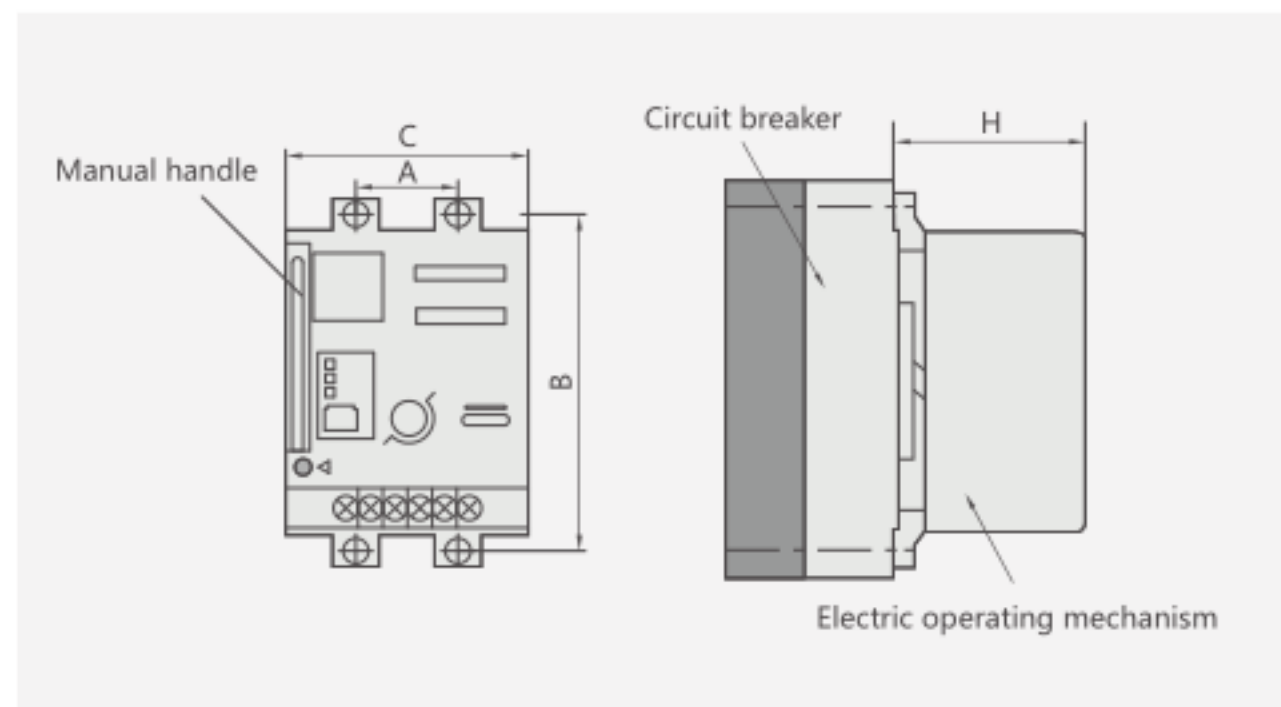


Wiring diagram



1. Manually prohibit counterclockwise operation
2. When it is manual operation, insert the handle at the starting point, clockwise rotate it 180°

Model & Spec.	DC3-63/30	DC3-100/30	DC3-250/30	DC3-400/30	DC3-630/30	
Applicable model	YCM7-125 YCM7RT-125	YCM7-160 YCM7RT-160 YCM7E-160	YCM7-250 YCM7RT-250 YCM7E-250	YCM7-400 YCM7RT-400 YCM7E-400 YCM7-630 YCM7RT-630 YCM7E-630	YCM7-800 YCM7RT-800 YCM7E-800	
Outline dim.	A	25	30	35	44	70
	B	117	132	126	194	243
	C	73	90	90	130	130
	H	98	98(89.5)	102(92)	152	153
Rated voltage (V)	AC-110-24, DC100-220, DC24			AC230, DC220 or AC110, DC110, DC24		
Starting current (A)	≤0.5			≤2		
Mechanical life (times)	14000		10000	5000		
Power (W)	14			35		



## Distribution Apparatus

### YCM7RE Electronic Adjustable MCCB



#### General

YCM7RE Series Electronic circuit breaker is suitable for ac 50 Hz, rated voltage 690V, the rated working current 800A low voltage power grid.

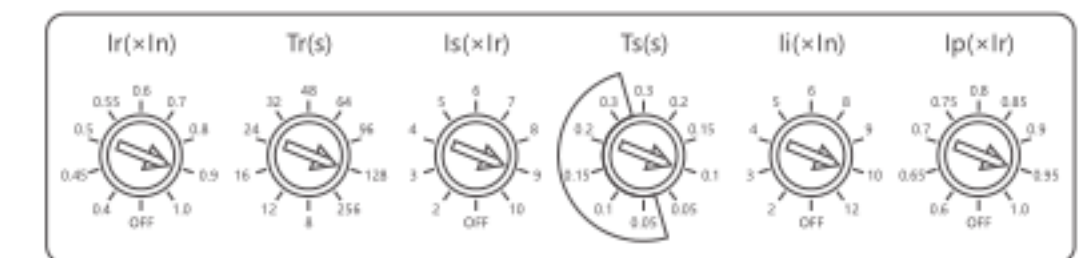
#### Suitable Working Environment and Installation Condition

1. Altitude less than 2000m
2. Ambient medium temperature is from -5°C to +40°C (+45°C for shipping product)
3. Humidity resistance
4. Bacteria resistance
5. Nuclear radiation resistance
6. Max lean degree is 22.5 degree.
7. Can operate normally when it comes to vibration of ship.
8. Can operate normally when it comes to earthquake(4g).
9. The medium should be no risk of blasting and can't erode the metal and damage insulating gas as well as conductive dust.
10. Work in the places where is no rain and snow.

#### Features

1. Above MCCB can put accessories such as, UVT, Shunt, Aux, Alarm contact, Motor-driven operation, Mechanism, Rotary handle.
2. Function available as over-load long-time delay, short-circuit time-delay, instant protection.
3. Earth-fault protection, Thermal analog Pre-alarm, indication, Over-current, indication operational current.

#### Panel and Function



Notice:

1. Ir: Adjustable setting value of over-load protection, it could be adjusted as per customer's requirements;
2. Tr: Adjustable setting value of long time-delay operated time  $Tr \pm 20\%$ , tripping time at the status of  $6I_r$  can be set as per customer's requirements;
3. Is: Adjustable setting value of short time-delay current;
4. Ts: Adjustable setting value of short time-delay operated time, it is divided into two types: fixed time limit  $T_s$  (0.05s, 0.1s, 0.15s, 0.2s, 0.3s) and reverse time limit  $T_s$  (0.05s, 0.1s, 0.15s, 0.2s, 0.3s).
5. Ii: Adjustable setting value of instant current;
6. Ip: Adjustable setting value of over-load alarm current.

## YCM7RE Electronic Adjustable MCCB

### Selection Guide

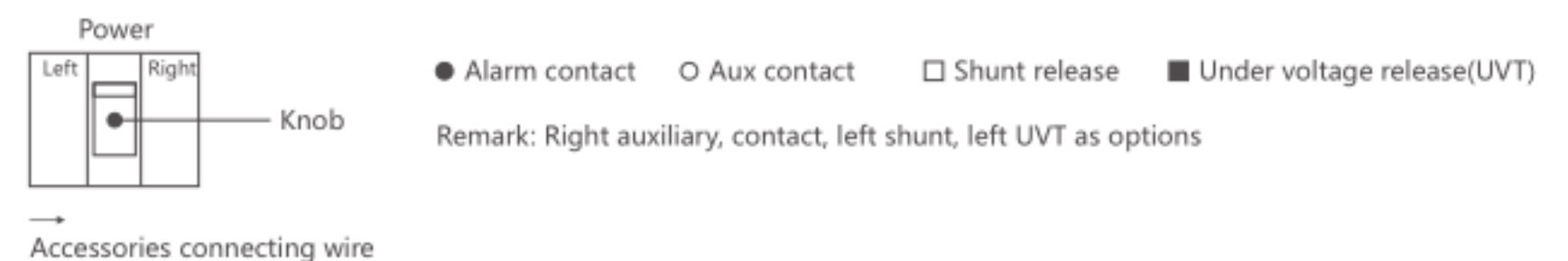
YCM7 RE - 160 P/3 300 160A 2 A

Type	The adjustable type	Current frame code optional
YCM7 MCCB	RE RE: Electronic adjustable	160 Inm=160 Inm=250 Inm=400 Inm=630 Inm=800
Operation	Poles	Tripping mode and inner accessory
P P: Motor-driven Z: Rotation handle W: Direct	3 3: 3P 4: 4P	300 The intelligent tripping device  Remark: The last two figures means accessory code (see accessories list)
Application	Option for 4P MCCB	
2 1: Power distribution 2: Motor-protection	A A: N pole without protection, N pole is always ON B: N pole without protection, N pole makes with the other three poles  Remark: If the customer has no specific requirements, the quadropole product will be the default for the B class	

## YCM7RE Electronic Adjustable MCCB

### YCM7RE 3P Accessories Code

Model	YCM7RE-160	YCM7RE-250	YCM7RE-400	YCM7RE-630	YCM7RE-800
No. of poles	3	3	3	3	3
Code	Accessory name				
308	Alarm contact				
310	Shunt release				
320	Auxiliary contact				
330	Under-voltage release				
340	Shunt auxiliary contact				
360	Two groups auxiliary contacts				
370	Auxiliary contact UVT				
318	Shunt alarm contact				
328	Auxiliary alarm contact				
338	UVT alarm contact				
348	Shunt auxiliary alarm contact				
368	Two groups aux alarm contact				
378	Aux contact UVT alarm contact				
380	Two groups aux contact and shunt				

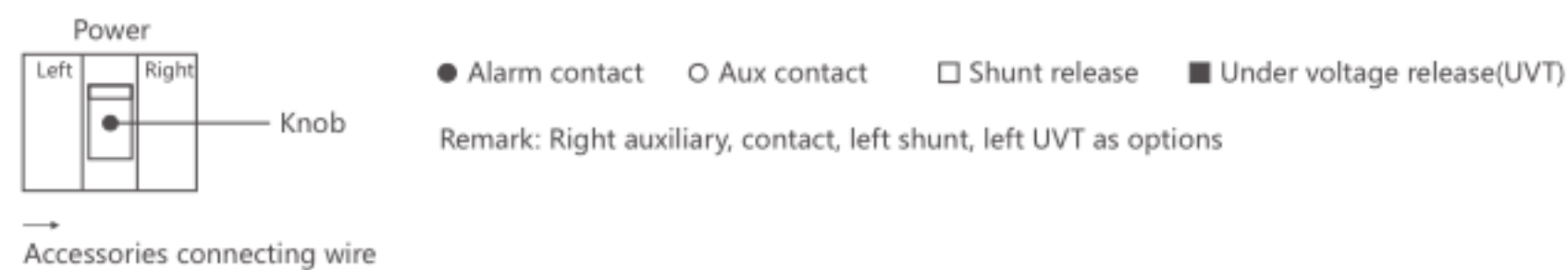




## YCM7RE Electronic Adjustable MCCB

### YCM7RE 4P Accessories Code

Model	YCM7RE-160	YCM7RE-250	YCM7RE-400	YCM7RE-630	YCM7RE-800
No. of poles	4	4	4	4	4
Code	Accessory name				
308					
310					
320					
330					
340					
360					
370					
318					
328					
338					
348					
368					
378					
380					



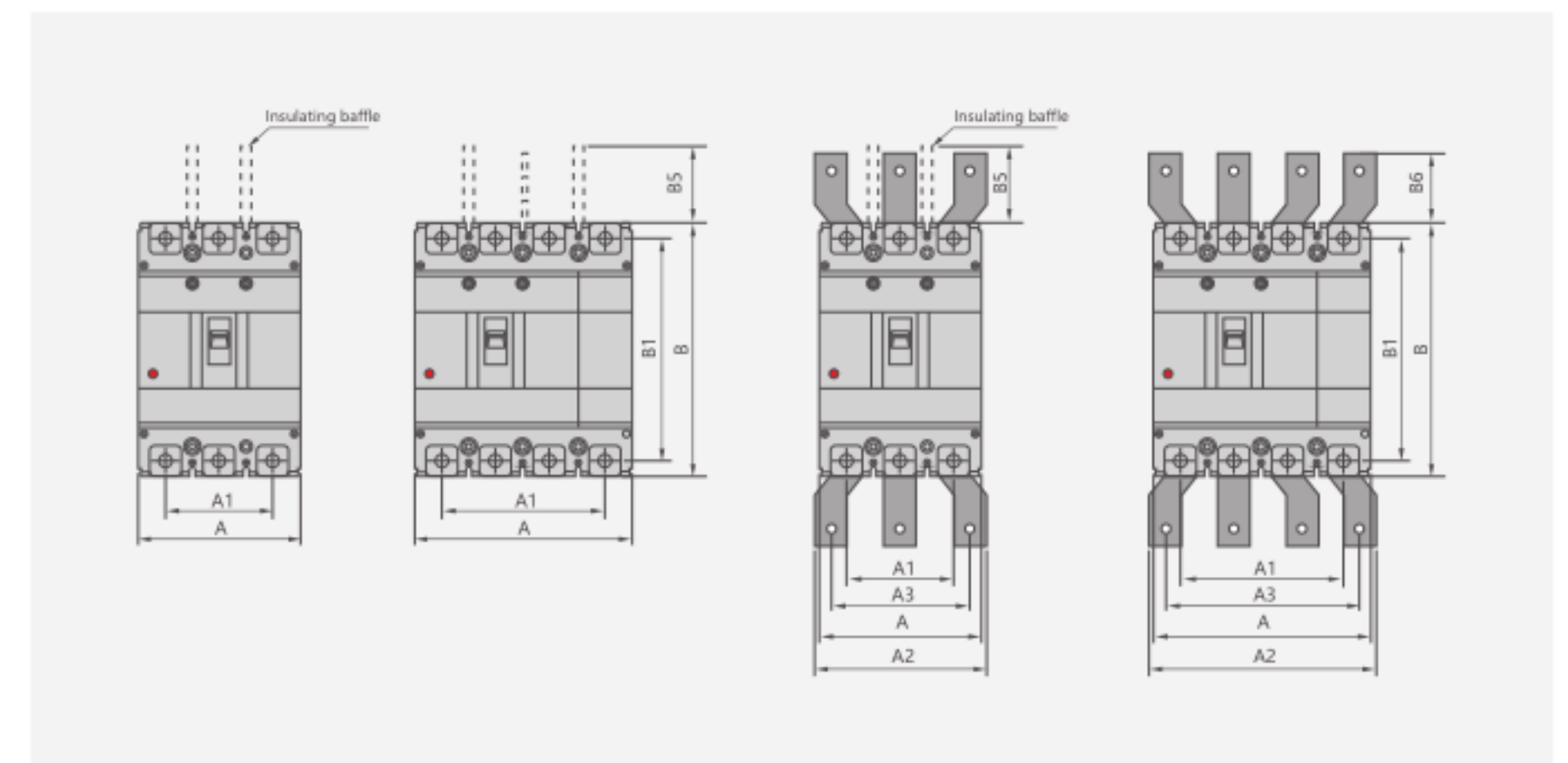
## YCM7RE Electronic Adjustable MCCB

### Technical Data

Type	YCM7RE-160M	YCM7RE-250M	YCM7RE-400M/630M	YCM7RE-800M
Frame(A)	160	250	400 630	800
Number of poles	3,4	3,4	3,4	3,4
Products				
Rate current adjustable range(A)	16-32, 40-100, 64-160	100-250	160-400, 252-630	252-630, 320-800
Rated voltage Ue(V)	AC400V	AC400V	AC400V	AC400V
Rated insulation voltage Ui(V)	AC800V	AC800V	AC800V	AC800V
Short-circuit breaking capacity Icu/1cs(kA)	AC400V	35/25	35/25	50/35
	ON	1500	1000	1000
Operation life (cycle)	OFF	8500	7000	4000
				1500
Motor-driven operation	•	•	•	•
External rotary handle	•	•	•	•
Automatic tripping device	Electronic type	Electronic type	Electronic type	Electronic type

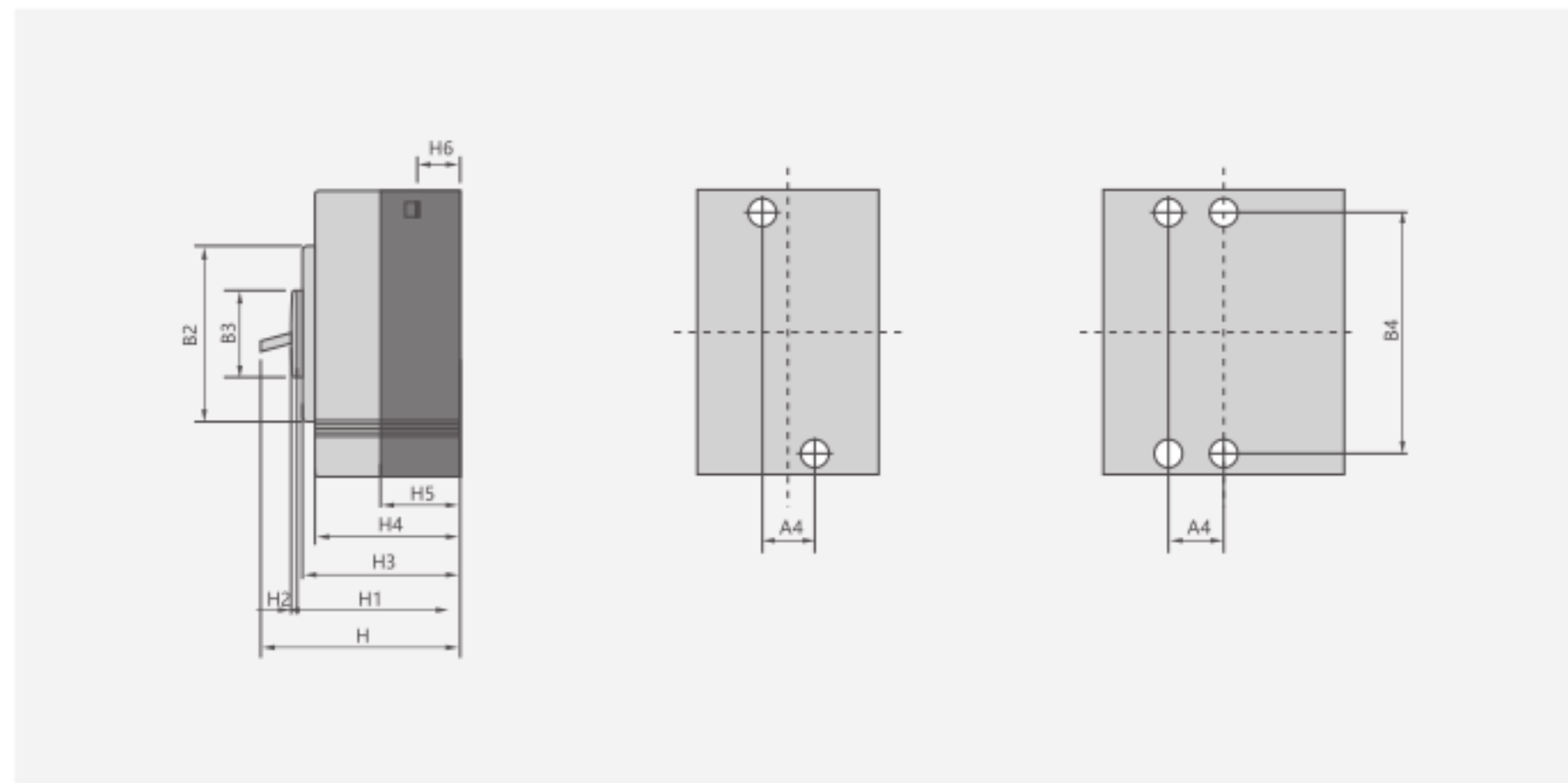
• Means accessory as option

### Front Connection & Overall



## YCM7RE Electronic Adjustable MCCB

### Outline Overall and Installing Dimensions



Thermal magnetic trip circuit breaker	Overall dimensions																			Installing dimensions		Bolt		
	A		A1		A2		A3		B	B1	B2	B3	B5	B6	H	H1	H2	H3	H4	H5	H6		A4	B4
	3P	4P	3P	4P	3P	4P	3P	3P																
YCM7RE-160M	90	120	60	90	-	-	-	-	155	134	102	50	50	-	109	83	4	68	61	20.7	24	30	132	M8
YCM7RE-250M	105	140	70	105	-	-	-	-	165	144	102	50	100	-	120	91	4	68	61	45	24	35	126	M8
YCM7RE-400M	140	185	88	132	140	196	112	168	257	230	179	90	110	42	155	107	5	105	97	45	36	44	194	M10
YCM7RE-630M	140	185	88	132	140	196	112	168	257	230	179	90	110	42	155	107	5	105	97	45	36	44	194	M10
YCM7RE-800M	210	280	140	210	180	250	140	210	275	243	192	90	110	87	155	107	5	104	97	15	24	70	243	2xM8

## YCM7T/A, RT Thermal Magnetic Adjustable MCCB



### Selection Guide

YCM7 RT - 160 M Z / 3 300 2 A Q1 D Q 2

Type	The adjustable type	Frame Inm	Breaking capacity ICU/ICS(kA)		Operation
YCM7	RT	160	M		Z
MCCB	RT: Therm-mag T/A: Therm	160, 250, 630, 800	S	M	P: Motor-driven Z: Rotory handle W: Direct Ⓢ: Motor-driven operation DC1, DC3
		Remark: 160 Frame upgrade from 125 250 Frame upgrade from 225 630 Frame upgrade from 400	160 250 400 630 800	25/18 25/18 35/25 50/35 50/35	

Poles	Tripping mode and inner accessory	Rated current(A)	Application
3	300	160	2
2: 2P 3: 3P 4: 4P	First figure means tripping unit way 2: Only with magnetic release 3: Thermal release+,magnetic release body	160 50-63, 63-80, 80-100, 100-125, 125-160  250 100-125, 125-160, 160-200, 200-250 400 200-250, 250-320, 320-400  630 400-500, 500-630  800 500-630, 630-800	1. Power distribution 2. Motor-protection
	Remark: The last two figures means accessory code (see accessories list)		

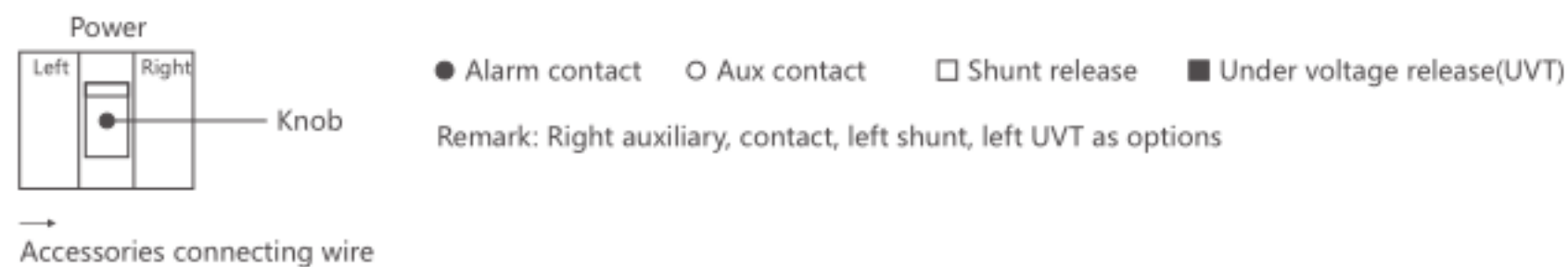
Option for 4P MCCB	Accessory voltage	Motor-driven operation voltage	Connection	Connection plate
A	Q1	D	Q	2
A: N pole without protection, N pole is always ON B: N pole without protection, N pole makes with the other three poles	UVT Shunt Q1: AC220V F1: AC220V Q2: AC240V F2: AC380V Q3: AC380V F3: DC110V Q4: AC415V F4: DC24V J1: AC125V J2: AC250V J3: DC125 J4: DC24V	DC1 DC3 D1: AC220V D5: AC220V D2: AC230V D6: AC110V D3: AC380V D7: DC220V D4: AC400V D8: DC110V D9: AC110~240V D10: DC100~220V  Remark: DC1, DC3 motor-driven operation voltage see external accessories table.	Q: Front H: Rear C: Plug-in	1: W/O 2: W



**YCM7T/A, RT Thermal Magnetic Adjustable MCCB**

Inner Accessories

Model		YCM7T/A-160 YCM7RT-160		YCM7T/A-250 YCM7RT-250		YCM7T/A-400/630 YCM7RT-400/630		YCM7T/A-800 YCM7RT-800	
Breaking capacity		S		S		S,M		M	
No. of poles		3	4	3	4	3,4		3,4	
Code	Accessory name								
208, 308	Alarm contact								
210, 310	Shunt release								
220, 320	Auxiliary contact								
230, 330	Under-voltage release								
240, 340	Shunt auxiliary contact								
260, 360	Two groups auxiliary contacts								
270, 370	Auxiliary contact UVT								
218, 318	Shunt alarm contact								
228, 328	Auxiliary alarm contact								
238, 338	UVT alarm contact								
248, 348	Shunt auxiliary alarm contact								
268, 368	Two groups aux alarm contact								
278, 378	Aux contact UVT alarm contact								
280, 380	Two groups aux contact and shunt								



**YCM7T/A, RT Thermal Magnetic Adjustable MCCB**

Technical Data

Type	YCM7T/A-160S YCM7RT-160S	YCM7T/A-250S YCM7RT-250S	YCM7T/A-400S YCM7RT-400S
Frame(A)	160	250	400
Number of poles	3,4	3,4	3,4
Products			
Rate current adjustable range(A)	50-63,63-80,80-100, 100-125,125-160	100-125,125-160, 160-200,200-250,	200-250,250-320, 320-400
Rated voltage Ue(V)	AC400V	AC400V	AC400V
Rated insulation voltage Ui(V)	AC800V	AC800V	AC800V
Short-circuit breaking capacity Icu/1cs(kA)	AC400V	25/18	25/18
Operation life (cycle)	ON	3000	3000
	OFF	7000	7000
Motor-driven operation	•	•	•
External rotary handle	•	•	•
Automatic tripping device	Thermo-magnetic	Thermo-magnetic	Thermo-magnetic

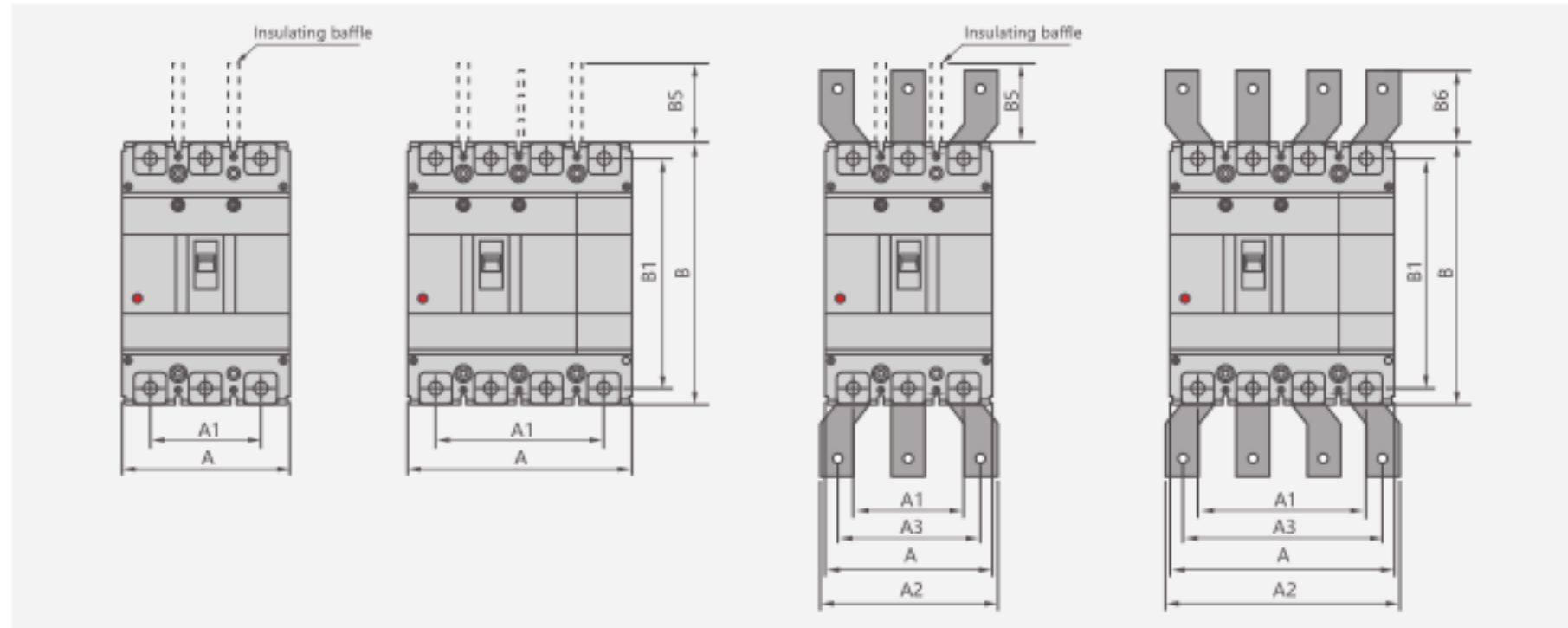
Type	YCM7T/A-400M YCM7RT-400M	YCM7T/A-630M YCM7RT-630M	YCM7T/A-800M YCM7RT-800M
Frame(A)	400	630	800
Number of poles	3,4	3,4	3,4
Products			
Rate current adjustable range(A)	200-250,250-320, 320-400	400-500,500-630	500-630,630-800
Rated voltage Ue(V)	AC400V	AC400V	AC400V
Rated insulation voltage Ui(V)	AC690V	AC690V	AC690V
Short-circuit breaking capacity Icu/1cs(kA)	AC400V	50/35	50/35
Operation life (cycle)	ON	2000	2000
	OFF	4000	4000
Motor-driven operation	•	•	•
External rotary handle	•	•	•
Automatic tripping device	Thermo-magnetic	Thermo-magnetic	Thermo-magnetic

• Means accessory as option

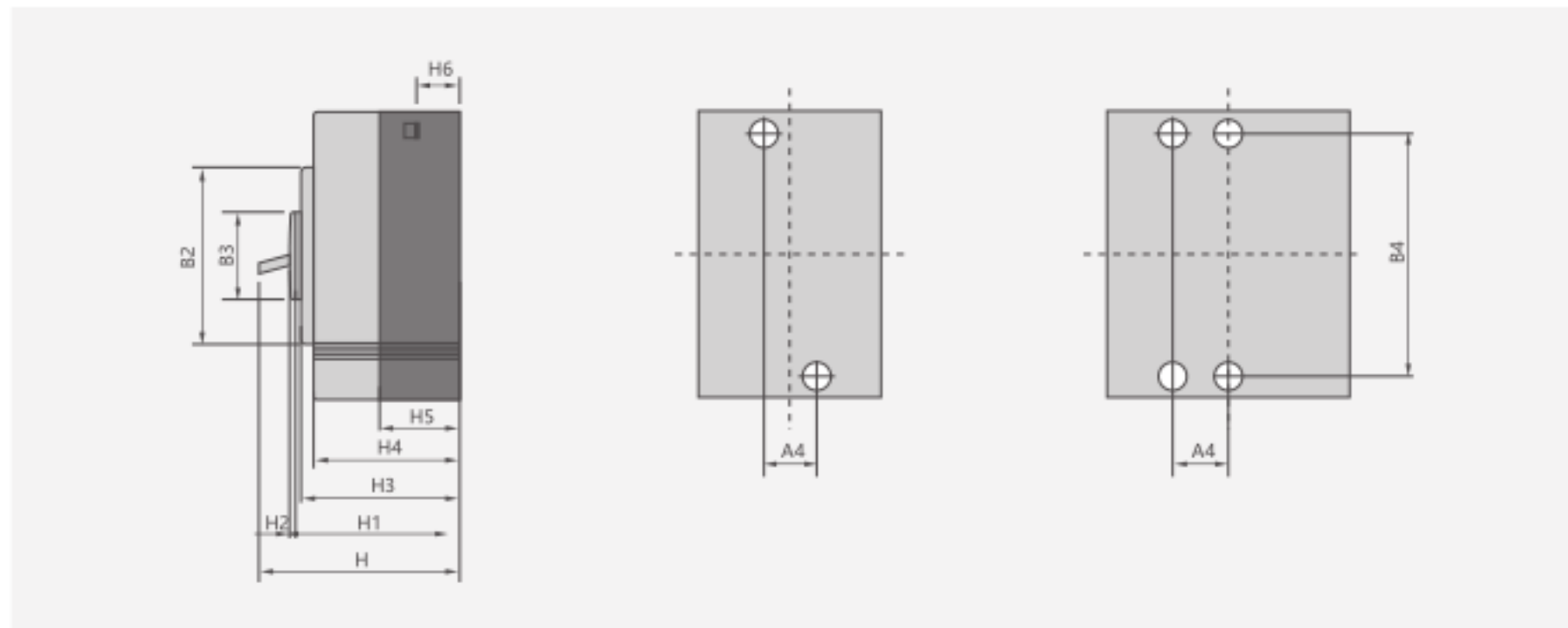
## Distribution Apparatus

### YCM7T/A, RT Thermal Magnetic Adjustable MCCB

#### Front Connection & Overall



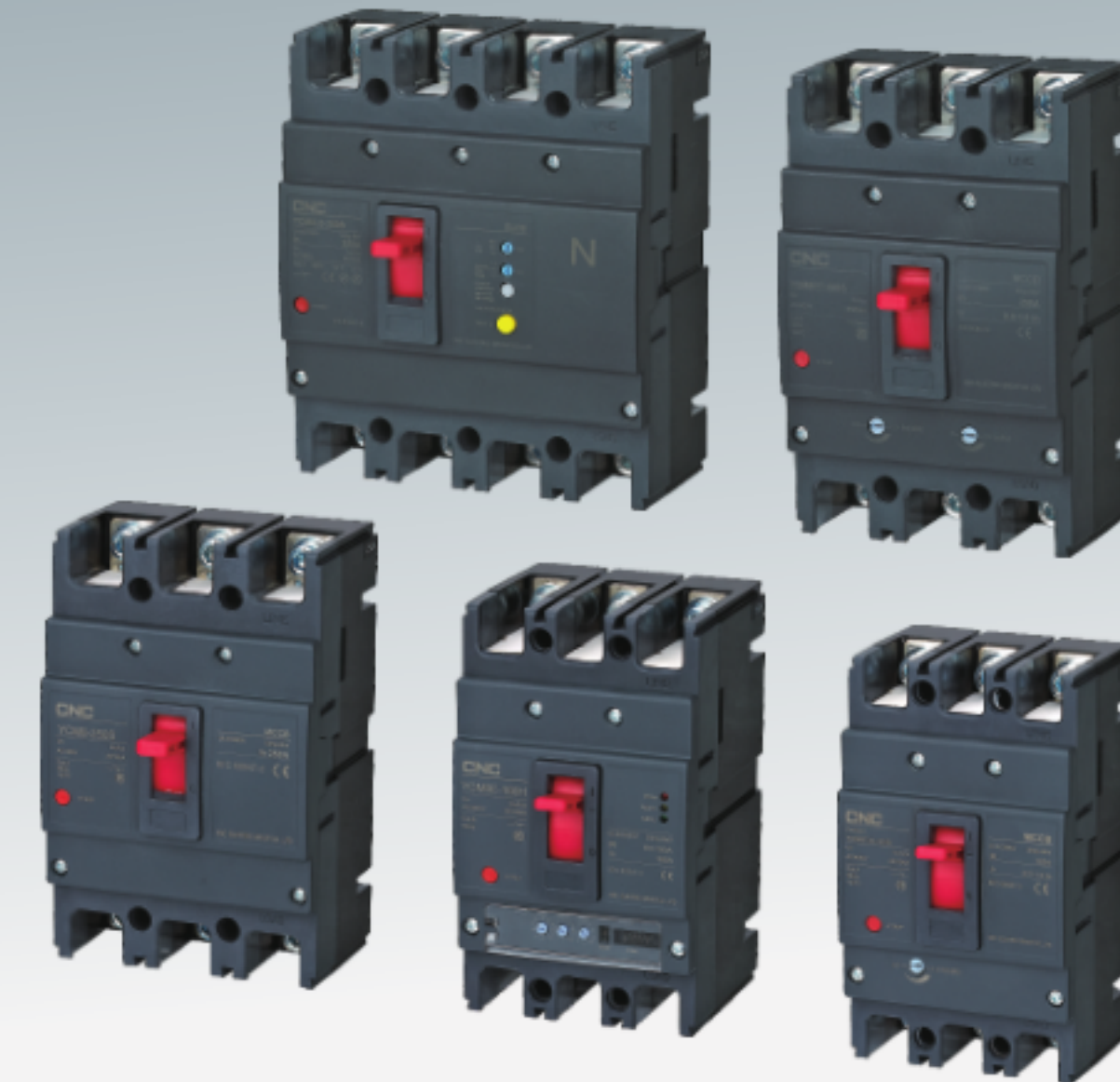
#### Outline Overall and Installing Dimensions



Thermal magnetic trip circuit breaker	Thermal adjustable circuit breaker	Overall dimensions																		Installing dimensions		Bolt			
		A		A1		A2		A3		B	B1	B2	B3	B5	B6	H	H1	H2	H3	H4	H5		H6	A4	B4
		3P	4P	3P	4P	3P	4P	3P	3P																
YCM7RT-160S	YCM7T/A-160S	90	120	60	90	-	-	-	-	155	134	103	50	50	-	94	72	4	68	61	41	24	30	132	M8
YCM7RT-250S	YCM7T/A-250S	105	140	70	105	-	-	-	-	165	144	103	50	100	-	96	72	4	68	61	46	24	35	126	M8
YCM7RT-400S	YCM7T/A-400S	140	185	88	132	140	196	112	168	257	230	179	90	110	43	155	107	5	105	97	64	36	44	194	M10
YCM7RT-400M	YCM7T/A-400M	140	185	88	132	140	196	112	168	257	230	179	90	110	43	155	107	5	105	97	64	36	44	194	M10
YCM7RT-630M	YCM7T/A-630M	140	185	88	132	140	196	112	168	257	230	179	90	110	42	155	107	5	105	97	64	36	44	194	M10
YCM7RT-800M	YCM7T/A-800M	210	280	140	210	180	250	140	210	275	243	192	90	110	87	155	107	5	104	97	65	24	70	242.5	M12

## YCM8 Series

### Distribution Apparatus



- Multi-function choices
- Design for small size
- Modular accessories for easy and convenient installation

**CNC**  
ELECTRIC



**General**

YCM8 Series circuit breakers were developed according to the demand of domestic and international market as well as features of similar products. Its rated insulation voltage up to 1000V, is suitable for AC 50Hz distribution network circuit whose rated operation voltage is up to 690V, rated operation current from 10A to 800A. It can distribute power, protect the circuit and power supply devices from the damage of overload, short circuit and under voltage, etc. This series circuit breaker feature small volume, high breaking capacity and short arcing. It can be installed vertically (namely vertical installation) and also installed horizontally (namely horizontal installation). It complies with standards of IEC60947-2.

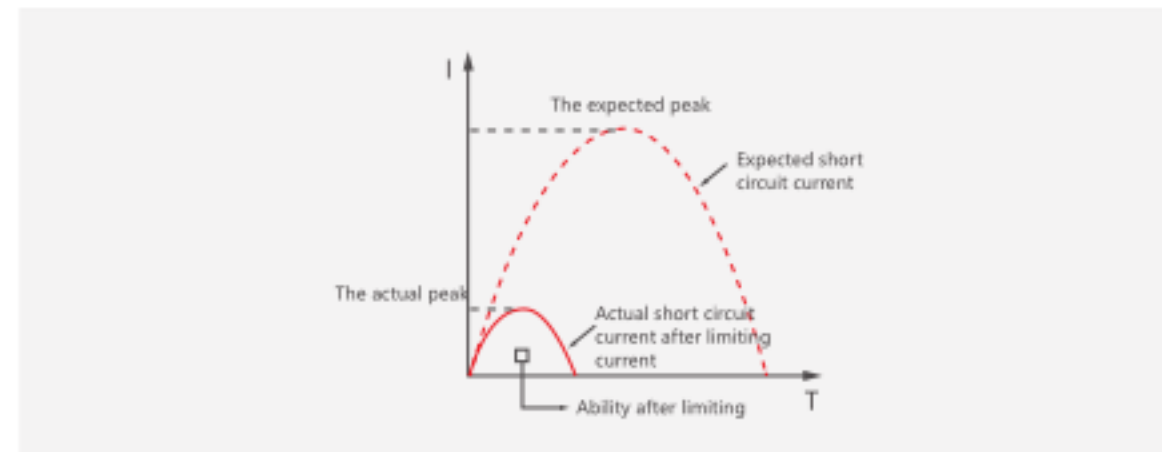
**Feature**

**Feature 1: Current limiting ability**

Limiting the rise of short circuit current of circuit. The peak short circuit current and I<sup>2</sup>t power are much lower than the value expected.

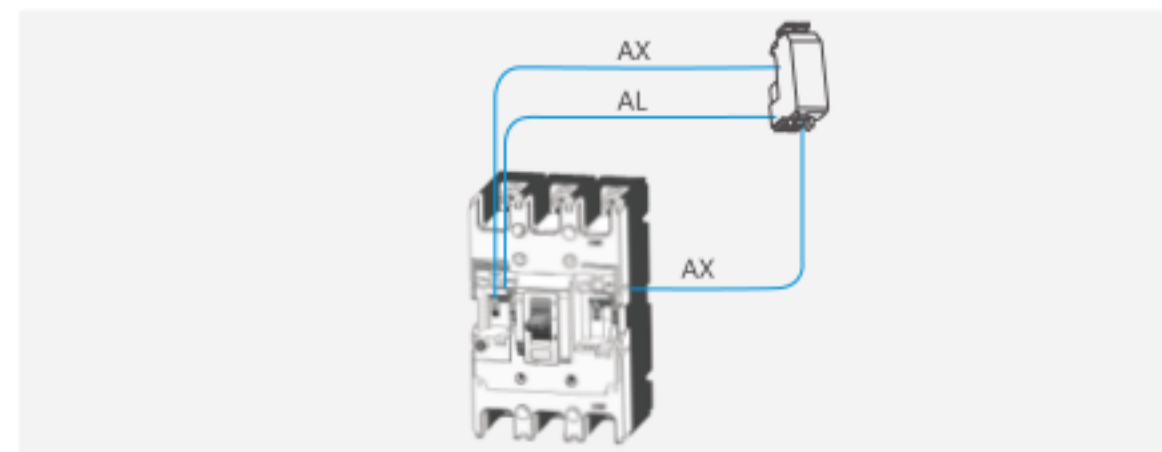
**U shape fixed contact design**

The U shape fixed contact design achieves the technique of pre-breaking: When the short circuit current pass through the contact system, there are forces that repel each other on the fixed contact and moving contact. The forces were produced with short circuit current synchronous and enlarge while short circuit current enlarge. The forces make the fixed contact and moving contact apart before tripping. They elongated the electric arcing to enlarge their equivalent resistance to limit the rise of short circuit current.



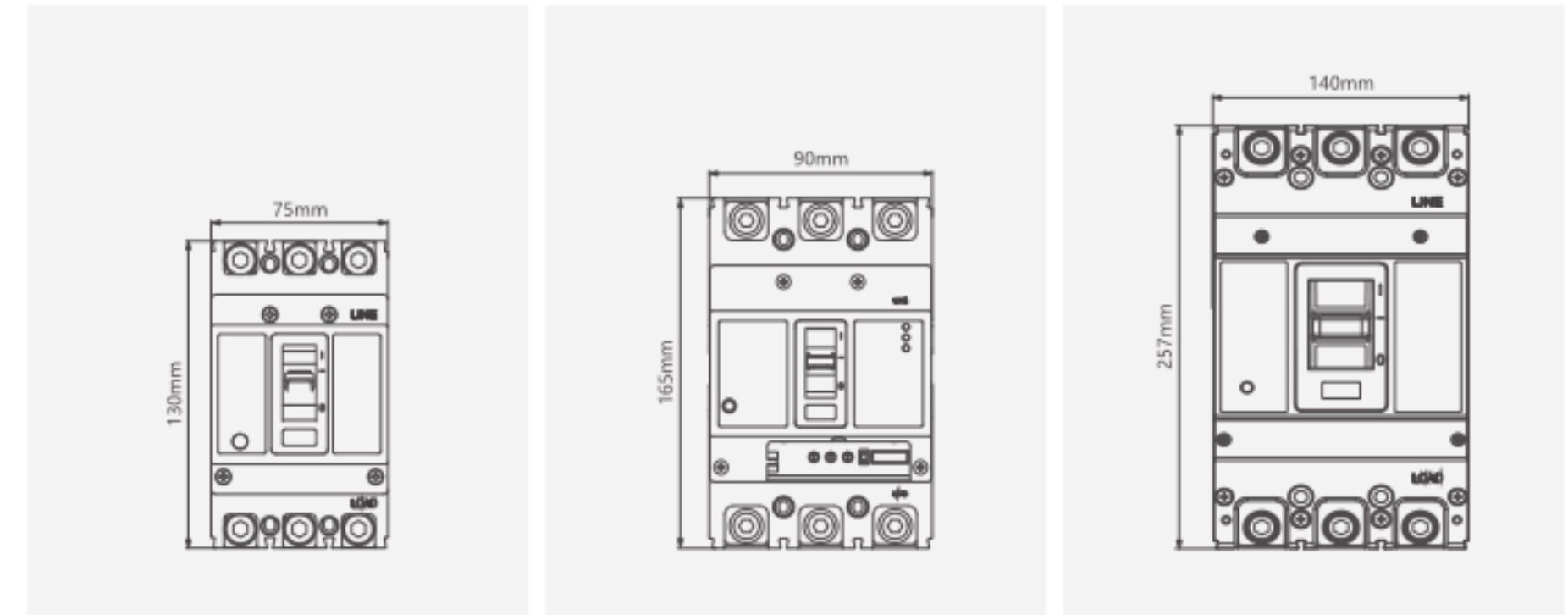
**Feature 2: Modular accessories**

The size of accessories is same for YCM8 with same frame. You can choose the accessories according to your needs to extend the function of YCM8.



**Feature 3: Frame miniaturization**

5 frame class: 125 type, 160 type, 250 type, 630 type, 800 type  
The rated current of YCM8 series: 10A~1250A.



The outlook size of 125 frame is same as the original 63 frame, width is only 75mm.

The outlook size of 160 frame is same as the original 100 frame, width is only 90mm.

The outlook size of 630 frame is same as the original 400 frame, width is only 140mm.

**Feature 4: Contact repulsion**

The technical scheme:

See figure1, this new contact device is mainly consist of fixed contact, moving contact, shaft 1, shaft 2, shaft 3 and spring. When the circuit breaker is closed, shaft 2 is at the right of spring angle. When there is large fault current, the moving contact rotate around the shaft 1 under the electric repulsion caused by current itself. When shaft 2 rotate over the top of spring angle, the moving contact rotate upward quickly under the reaction of spring and breaking the circuit fast. The breaking capacity is improved with the optimized contact structure.

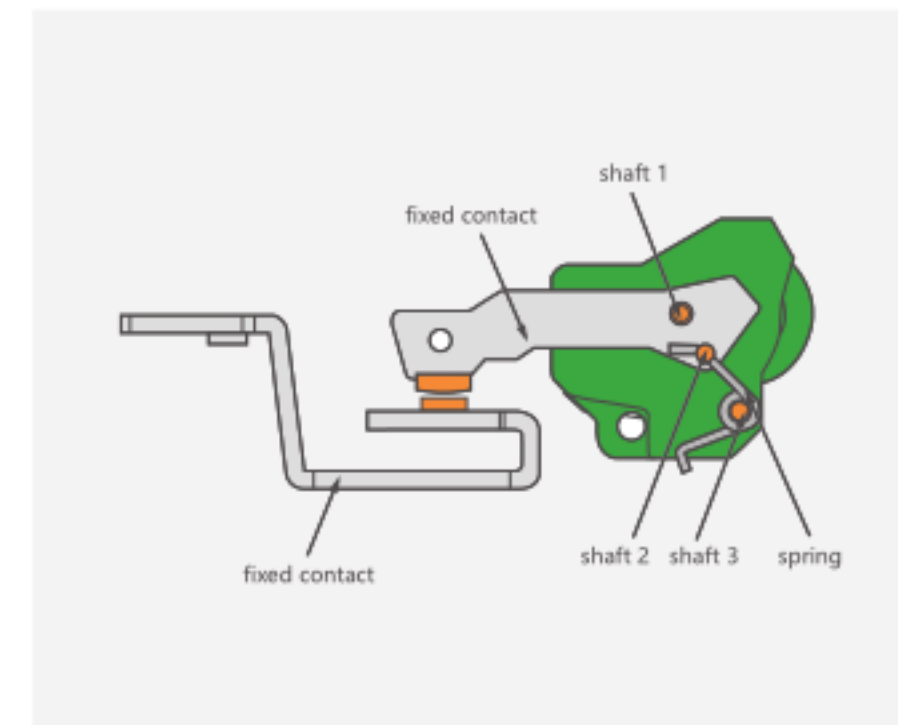


figure1

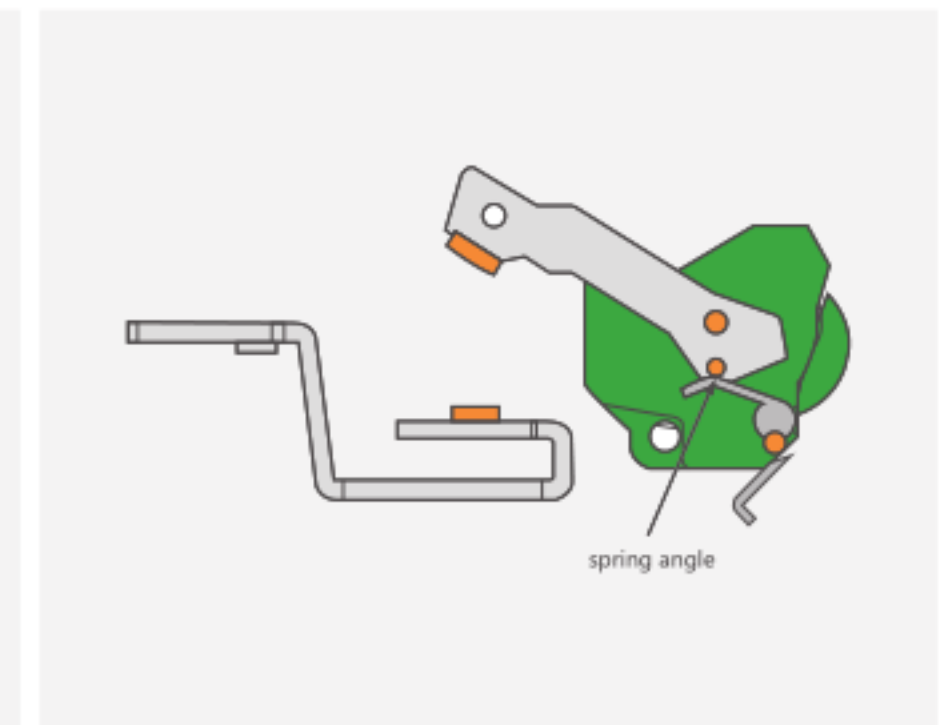


figure2 (at the situation of breaking)

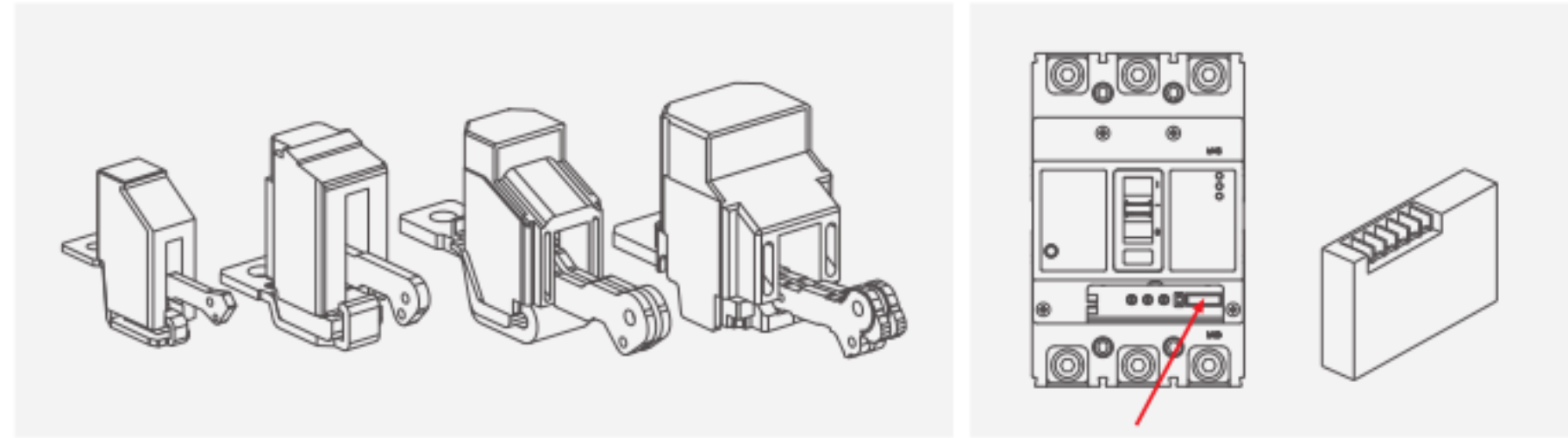
## Distribution Apparatus

### YCM8 Series MCCB

#### Feature 5: Intelligent

YCM8 can be connected to Modbus communication system with special wire easily. With communication function, it can match with monitoring unit accessories to realize the door display, reading, setting and control.

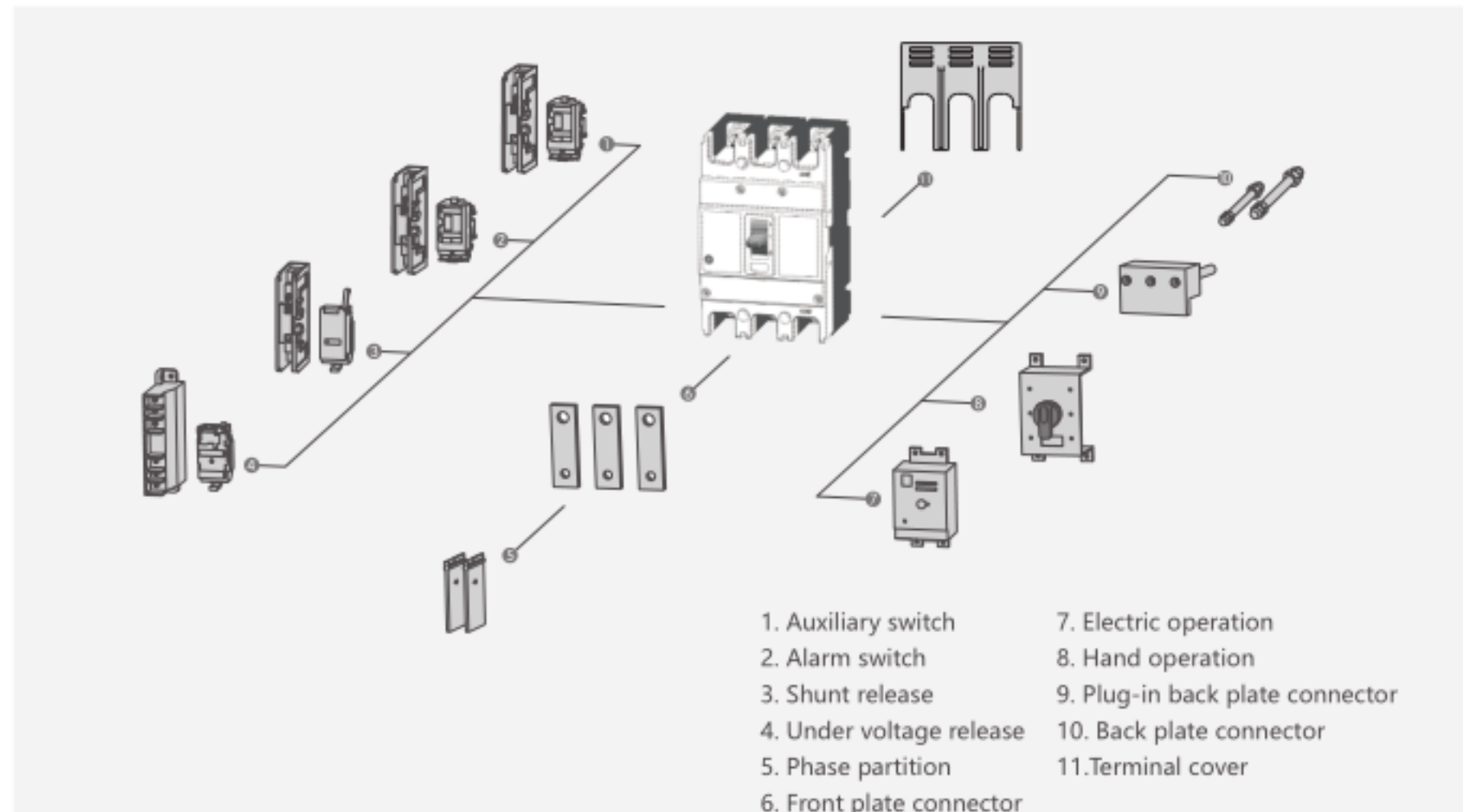
#### Feature 6: Arc extinguishing system is modular



The communication is placed outside the body.

#### Working Environment and Installation Condition

- Altitude: Below 2000m
- Temperature: The temperature of media is not higher than 40°C (+45°C for marine products) and not lower than -5°C.
- Can withstand the bad environment of damp air, mold, radiation.
- The maximum inclination is 22.5 degree.
- Can work reliably under normal vibration of ship.
- Can work reliably under earthquake(4g).
- Should be no rain and snow hit.
- The media should be no explosion danger and no gas which can corrode the metal or destroy the insulating or conductive dust.



1. Auxiliary switch
2. Alarm switch
3. Shunt release
4. Under voltage release
5. Phase partition
6. Front plate connector
7. Electric operation
8. Hand operation
9. Plug-in back plate connector
10. Back plate connector
11. Terminal cover

## Distribution Apparatus

### YCM8 MCCB

#### Selection Guide

YCM8 - 125 H P / 4 300 - 125A 2 A Q1 D1 Q 2

Product Code	Frame Class	Current Class	Power Supply Voltage Code of the Control Loop	Pole Number
YCM8	125	H	P	4
moulded case circuit breaker	125, 160, 250, 630, 800 Note: 125 is the upgraded 63 frame, 160 is the upgraded 100 frame, 250 is the upgraded 225 frame, 630 is the upgraded 400 frame	S H 125 15/10 25/18 160 25/18 35/25 250 25/18 35/25 400 35/25 50/35 630 35/25 50/35 800 - 50/35	P: electric drive operation Z: rotational handle W: operate directly	3: three poles 4: four poles

Release Mode and Internal Attachment	Rated Current (A)	Application	Optional for 4 Poles Product
300	125A	2	A
The first number indicate release mode 2: only with the instantaneous release device 3: complex release Note: the last two numbers are attachment code (see attachment table)	125: 10, 16, 20, 32, 40, 50, 63, 80, 100, 125 160: 10, 16, 20, 32, 40, 50, 63, 80, 100, 125, 140, 160 250: 100, 125, 140, 160, 180, 200, 225, 250 400: 250, 300, 315, 350, 400 630: 400, 500, 630 800: 500, 630, 700, 800, 1000, 1250	1: for distribution 2: for protecting the motor	A: N pole without protection, can not switch B: N pole without protection, can switch C: N pole with protection, can switch D: N pole with protection, can not switch

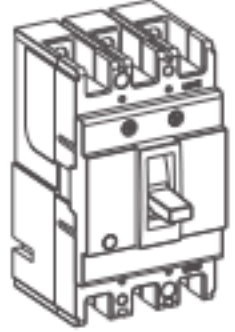
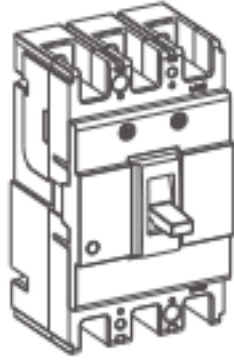
Attachment Voltage	Electric Operating Voltage	Installation Type	With the Connector or Not
Q1	D1	Q	2
Under Voltage Release Q1: AC220V Q2: AC240V Q3: AC380V Q4: AC415V	Shunt Release F1: AC220V F2: AC380V F3: DC110V F4: DC24V	Auxiliary Alarm J1: AC125V J2: AC250V J3: DC125V J4: DC24V	DC1 Electric Operating D1: AC220V D2: AC230V D3: AC380V D4: AC400V
	DC3 Electric Operating D5: AC230V D6: AC110V D7: DC220V D8: DC110V D9: AC110-240V D10: DC100-220V	Q: Front H: Back C: Plug-in	1: not 2: yes
Note: These two volte only for suit voltage when choose the electric operating. Please refer to the external attachment introduction.			



## Distribution Apparatus

### YCM8 MCCB

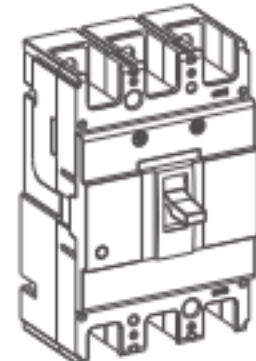
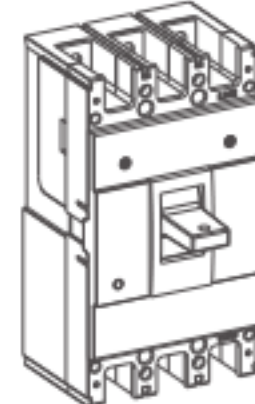
#### Main Technical Data

Frame Current(A)		125		160	
Type		YCM8-125S	YCM8-125H	YCM8-160S	YCM8-160H
Pole number		2,3,4		2,3,4	
					
Rated Current (A)		10, 16, 20, 32, 40, 50, 63, 80, 100, 125		10, 16, 20, 32, 40, 50, 63, 80, 100, 125, 140, 160	
Rated voltage (V)		AC400V		AC400V	
Rated insulation voltage (V)		AC1000V		AC1000V	
Short Circuit Breaking Capacity (kA) Icu/Ics	AC400V	15/10	25/18	25/18	35/25
Operating Circle Times	Charged ON	6000		3000	
	Not charged OFF	9000		7000	
Dimension(mm) a-b-c-ca	2P	50-130-68-90		60-155-68-90	60-155-88-115
	3P	75-130-68-90		90-155-68-90	90-155-88-115
	4P	100-130-68-90		120-155-68-90	120-155-88-115
Weight(kg)	2P	0.5	0.55	1.0	1.1
	3P	0.55	0.65	1.1	1.2
	4P	0.65	0.8	1.4	1.5
Electric operating device (MD)		•		•	
External drive handle		•		•	
Automatic release		Thermal electromagnetic type		Thermal electromagnetic type	

## Distribution Apparatus

### YCM8 MCCB

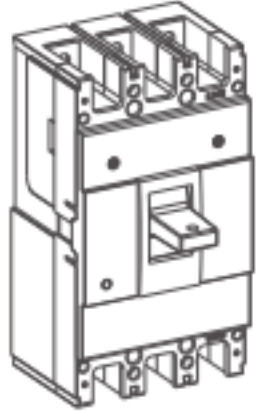
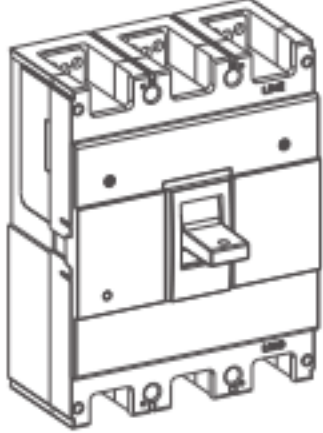
#### Main Technical Data

Frame Current(A)		250		400	
Type		YCM8-250S	YCM8-250H	YCM8-400S	YCM8-400H
Pole number		3,4		3,4	
					
Rated Current (A)		100, 125, 140, 160, 180, 200, 225, 250		250, 315, 350, 400	
Rated voltage (V)		AC400V		AC400V	
Rated insulation voltage (V)		AC1000V		AC1000V	
Short Circuit Breaking Capacity (kA) Icu/Ics	AC400V	25/18	35/25	35/25	50/35
Operating Circle Times	Charged ON	3000		2000	
	Not charged OFF	7000		4000	
Dimension(mm) a-b-c-ca	3P	105-165-68-92		140-257-103-155	
	4P	140-165-68-92		184-257-103-155	
	Weight(kg)	3P	1.5	5.5	
	4P	1.9	7.0		
Electric operating device (MD)		•		•	
External drive handle		•		•	
Automatic release		Thermal electromagnetic type		Thermal electromagnetic type	

## Distribution Apparatus

### YCM8 MCCB

#### Main Technical Data

Frame Current(A)		630		800		
Type		YCM8-630S	YCM8-630H	YCM8-800H	YCM8-1000H	YCM8-1250H
Pole number		3,4		3,4		
						
Rated Current (A)		250, 315, 350, 400, 500, 630		500, 630, 700, 800, 1000, 1250		
Rated voltage (V)		AC400V		AC400V		
Rated insulation voltage (V)		AC1000V		AC1000V		
Short Circuit Breaking Capacity (kA) Icu/Ics	AC400V	35/25		50/35		
Operating Circle Times	Charged ON	2000		1500		
	Not charged OFF	4000		4000		
Dimension(mm) a-b-c-ca	3P	140-257-103-155		210-275-103-155		
	4P	184-257-103-155		280-275-103-155		
Weight(kg)	3P	5.7		9.5		
	4P	7.5		12.5		
Electric operating device (MD)		•		•		
External drive handle		•		•		
Automatic release		Thermal electromagnetic type		Thermal electromagnetic type		

## Distribution Apparatus

### YCM8LE Earth Leakage MCCB

#### Selection Guide

YCM8LE - 160 S P / 4 300 - 160A 2 A L1 Y1 Q1 D1 Q 2

Product Code	Frame Class	Current Class	Power Supply Voltage Code of the Control Loop	Pole Number
YCM8LE	125	S	P	4
Residual-current circuit breaker	160, 250, 400, 800 Note: 125 is the upgraded 63 frame, 160 is the upgraded 100 frame, 225 is the upgraded 250 frame	S 25/18 25/18 35/25 50/35	P: electric drive operation Z: rotational handle W: operate directly	3: three poles 4: four poles

Release Type and Internal Accessory	Rated Current (A)	Application	Code of Four-pole Product
300	160A	2	A
The first digit represents release type 2: has instantaneous release only; 3: complex release Note: Later two digits are the code of accessories (see accessory table)	160: 10, 16, 20, 32, 40, 50, 63, 80, 100, 125, 140, 160 250: 100, 125, 140, 160, 180, 200, 225, 250 400: 250, 300, 315, 350, 400 800: 500, 630, 700, 800	1: power distribution 2: motor protection	A: N-pole without protection, cannot close or open B: N-pole without protection, can close and open C: N-pole with protection, can close and open D: N-pole with protection, cannot close or open Note: Unless otherwise mentioned, 4-pole products will be classified as CAT. B by default.

Rated residual operating current (mA)		Rated delay time (if selected)	
L1		Y1	
Delay fixed type	Quick three-gear adjustable	Delay fixity	Delay three-gear adjustable
L1: 30 L7: 200 L11: 30, 50, 100 L14: 100, 200, 300 L2: 50 L8: 300 L12: 30, 100, 200 L15: 100, 300, 500 L3: 75 L9: 500 L13: 30, 100, 500 L16: 300, 500, 1000 L4: 100 L10: 1000 L5: 150		Y1: 0.1s Y4: 0.4s Y7: 0.7s Y10: 1.0s Y13: 0.45, 1, 2 Y2: 0.2s Y5: 0.5s Y8: 0.8s Y11: 1.5s Y14: 1, 2, 3(s) Y3: 0.3s Y6: 0.6s Y9: 0.9s Y12: 2.0s	

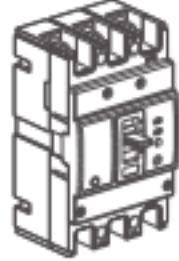
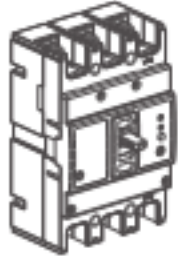
Attachment Voltage			Electric Operating Voltage		Installation Type	With the Connector or Not
Q1			D1		Q	2
Under Voltage Release	Shunt Release	Auxiliary Alarm	DC1 Electric Operating	DC3 Electric Operating	Q: Front-board H: Back-board C: Plug-in type	1: No 2: Yes
Q1: AC220V Q2: AC240V Q3: AC380V Q4: AC415V	F1: AC220V F2: AC380V F3: DC110V F4: DC24V	J1: AC125V J2: AC250V J3: DC125V J4: DC24V	D1: AC220V D2: AC230V D3: AC380V D4: AC400V	D5: AC230V D6: AC110V D7: DC220V D8: DC110V D9: AC110-240V D10: DC100-220V		
Note: Adaptable voltages for two electric operations. Please refer to the introduction of external accessory						



## Distribution Apparatus

### YCM8LE Earth Leakage MCCB

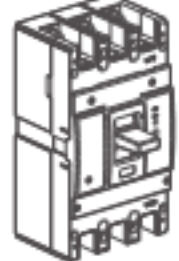

#### Main Technical Data

Frame Current(A)		160	250
Type		YCM8LE-160S	YCM8LE-250S
Pole number		2,3,4	3,4
			
Power supply system	3P	3Φ3W, 1Φ2W, 1Φ3W	3Φ3W, 1Φ2W, 1Φ3W
	4P	3Φ4W	3Φ4W
Rated Current (A)		10, 16, 20, 32, 40, 50, 63, 80, 100, 125, 140, 160	100, 125, 140, 160, 180, 200, 225, 250
Rated voltage (V)		AC400V	AC400V
Rated insulation voltage (V)		AC690V	AC690V
Leakage indication system		Button	Button
Short Circuit Breaking Capacity (kA) Icu/Ics	AC400V	25/18	25/18
Operating cycle number	ON	6000	3000
	OFF	9000	7000
Quick type	Rated residual operating current	30, 100, 500 (adjustable)	30, 100, 500 (adjustable)
	Max. actuation time	0.1	0.1
Delay type	Rated residual operating current	100, 300, 500 (adjustable)	100, 300, 500 (adjustable)
	Max. actuation time	-	-
	Max. actuation time under 21Δn (s)	0.45, 1.0, 2.0 (adjustable)	0.45, 1.0, 2.0 (adjustable)
	Inertia non-actuation time under 21Δn (s)	0.1, 0.5, 1.0	0.1, 0.5, 1.0
Dimension(mm) a-b-c-ca	2P	60-155-68-90	105-165-68-92
	3P	90-155-68-90	
	4P	120-155-68-90	140-165-68-92
Weight(kg)	2P	0.75	2.0
	3P	0.85	
	4P	1.2	2.5
Electric operating device (MD)		•	•
External drive handle		•	•
Automatic release		Thermal electromagnetic type	Thermal electromagnetic type

## Distribution Apparatus

### YCM8LE Earth Leakage MCCB

#### Main Technical Data

Frame Current(A)		400	800
Type		YCM8LE-400S	YCM8LE-800H
Pole number		3,4	3,4
			
Power supply system	3P	3Φ3W, 1Φ2W, 1Φ3W	3Φ3W, 1Φ2W, 1Φ3W
	4P	3Φ4W	3Φ4W
Rated Current (A)		250, 315, 350, 400	500, 630, 700, 800
Rated voltage (V)		AC400V	AC400V
Rated insulation voltage (V)		AC690V	AC690V
Leakage indication system		Button	Button
Short Circuit Breaking Capacity (kA) Icu/Ics	AC400V	35/25	50/35
Operating cycle number	ON	2000	2000
	OFF	4000	4000
Quick type	Rated residual operating current	30, 100, 500 (adjustable)	30, 100, 500 (adjustable)
	Max. actuation time	0.1	0.1
Delay type	Rated residual operating current	100, 300, 500 (adjustable)	100, 300, 500 (adjustable)
	Max. actuation time	-	-
	Max. actuation time under 21Δn (s)	0.45, 1.0, 2.0 (adjustable)	0.45, 1.0, 2.0 (adjustable)
	Inertia non-actuation time under 21Δn (s)	0.1, 0.5, 1.0	0.1, 0.5, 1.0
Dimension(mm) a-b-c-ca	3P	140-257-103-155	210-257-103-155
	4P	185-257-103-155	280-257-103-155
Weight(kg)	3P	6.6	12.5
	4P	8.4	17.5
Electric operating device (MD)		•	•
External drive handle		•	•
Automatic release		Thermal electromagnetic type	Thermal electromagnetic type

## YCM8T/A,RT Thermomagnetic Adjustable MCCB

### Selection Guide

YCM8 RT - 160 H Z / 3 300 2 A 2

Product Code	Adjustable type	Code of frame size current	Current Class
YCM8	RT	160	H
Moulded-case circuit breaker (MCCB)	RT: thermomagnetic adjustable T/A: single adjustable (i.e. thermal adjustable\magnetic fixed)	160, 250, 400, 630, 800 Note: 160 is the upgraded 100 frame, 225 is the upgraded 250 frame, 630 is the upgraded 400 frame	S H 160 25/18 35/25 225 25/18 35/25 400 35/25 50/35 630 35/25 50/35 800 - 50/35

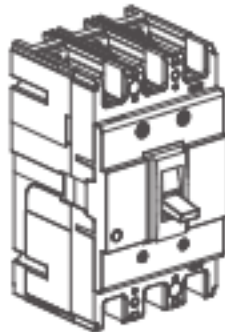
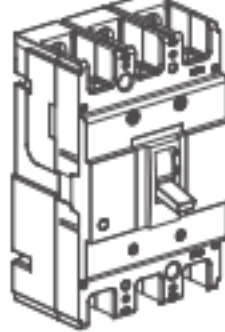
Code of operating mode	Pole Number	Release Type and Internal Accessory	Rated Current (A)
Z	3	300	160A
DC1, DC2, DC3 P: electric operation Z: rotary handle W: direct operation ① Electric operation DC1, DC2, DC3	3: three poles 4: four poles	The first digit represents release type 2: has instantaneous release only; 3: complex release Note: Later two digits are the code of accessories (see accessory table)	125: 20-25, 25-32, 32-40, 40-50, 50-63, 63-80, 80-100, 100-125, 125-160 250: 100-125, 125-160, 160-200, 200-250 400: 200-250, 250-320, 320-400 630: 400-500, 500-630 800: 400-500, 500-630, 630-800

Application	Code of Four-pole Product	Attachment Voltage
2	A	Q1
1: power distribution 2: motor protection	A: N-pole without protection, cannot close or open B: N-pole without protection, can close and open C: N-pole with protection, can close and open D: N-pole with protection, cannot close or open	Under Voltage Release Q1: AC220V Q2: AC240V Q3: AC380V Q4: AC415V Shunt Release F1: AC220V F2: AC380V F3: DC110V F4: DC24V Auxiliary Alarm J1: AC125V J2: AC250V J3: DC125V J4: DC24V

Electric Operating Voltage	Installation Type	With the Connector or Not
D1	Q	2
DC1 Electric Operating D1: AC220V D2: AC230V D3: AC380V D4: AC400V	DC3 Electric Operating D5: AC230V D6: AC110V D7: DC220V D8: DC110V D9: AC110-240V D10: DC100-220V	Q: Front-board H: Back-board C: Plug-in type 1: No 2: Yes
Note: Adaptable voltages for two electric operations. Please refer to the introduction of external accessory		

## YCM8T/A,RT Thermomagnetic Adjustable MCCB

### Main Technical Data

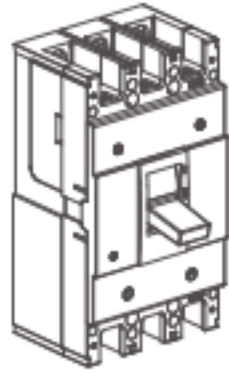
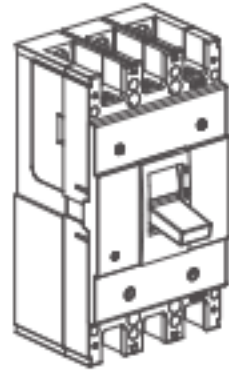
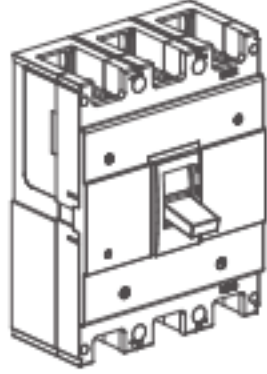
Frame Current(A)	160		250	
Type	YCM8RT-160S	YCM8RT-160H	YCM8RT-250S	YCM8RT-250H
Pole number	3,4		3,4	
				
Rated Current (A)	20-25, 25-32, 32-40, 40-50, 50-63, 63-80, 80-100, 100-125, 125-160		100-125, 125-160, 160-200, 200-250	
Rated voltage (V)	AC400V		AC400V	
Rated insulation voltage (V)	AC1000V		AC1000V	
Short Circuit Breaking Capacity (kA) Icu/Ics	AC400V	25/18 35/25	25/18	35/25
Operating Circle Times	Charged ON	3000		3000
	Not charged OFF	7000		7000
Dimension(mm) a-b-c-ca	3P	90-155-68-90		105-165-68-92
	4P	120-155-68-90		140-165-68-92
Weight(kg)	3P	1.0	1.0	1.5
	4P	1.1	1.4	1.9
Electric operating device (MD)	•		•	
External drive handle	•		•	
Automatic release	Thermal electromagnetic type		Thermal electromagnetic type	



## Distribution Apparatus

### YCM8T/A,RT Thermomagnetic Adjustable MCCB

#### Main Technical Data

Frame Current(A)		400		630		800	
Type		YCM8RT-400S	YCM8RT-400H	YCM8RT-630S	YCM8RT-630H	YCM8RT-800H	
Pole number		3,4		3,4		3,4	
							
Rated Current (A)		200-250, 250-320, 320-400		400-500, 500-630		400-500, 500-630, 630-800	
Rated voltage (V)		AC400V		AC400V		AC400V	
Rated insulation voltage (V)		AC1000V		AC1000V		AC1000V	
Short Circuit Breaking Capacity (kA) Icu/Ics	AC400V	35/25	50/35	35/25	50/35	50/35	
Operating Circle Times	Charged ON	2000		2000		1500	
	Not charged OFF	4000		4000		4000	
Dimension(mm) a-b-c-ca	3P	140-257-103-155		140-257-103-155		210-275-103-155	
	4P	185-257-103-155		185-257-103-155		280-275-103-155	
Weight(kg)	3P	5.5		5.7		9.5	
	4P	7.0		7.5		12.5	
Electric operating device (MD)		•		•		•	
External drive handle		•		•		•	
Automatic release		Thermal electromagnetic type		Thermal electromagnetic type		Thermal electromagnetic type	

## Distribution Apparatus

### YCM8E Electronic Adjustable Circuit Breaker

#### General

YCM8E series electronic circuit breakers are applicable for low-voltage power systems of AC 50Hz, rated operating voltage up to 1000V and rated operating current from 16A to 800A.

#### Ambient and installation conditions

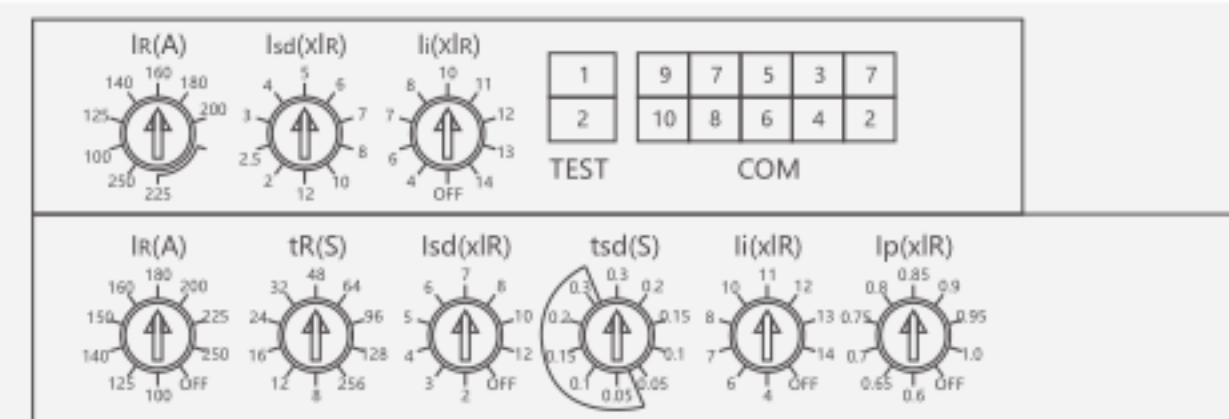
- Altitude up to 2000m;
- Ambient medium temperature should be within -5°C to +40°C (+45°C for marine products);
- It can withstand the effect of damp air;
- It can withstand the effect of salt fog or oil mist;
- It can withstand the effect of moulds;
- It can withstand the effect of nuclear radiation;
- The max inclination is 22.5°C.
- It still can work reliably when the ship subjects to normal vibration;
- It can still work reliably if the product subjects to the earthquake (4g).
- Places where the surrounding medium is free from explosion danger, and far away from gas or conductive dust that would erode the metal or destroy the insulation;
- Keep away from rain or snow.

#### Features

- Circuit breaker can be equipped with undervoltage release, shunt release, auxiliary contacts, alarm contacts, electric operating mechanism, rotary operating handle and other accessories.
- Circuit breaker has protection functions of overload long delay, short-circuit short delay and short-circuit instantaneous protection, the user can set the required protection characteristics (user only needs to operate the DIP switch for settings of protection function parameters).
- Circuit breaker has ground fault and thermal analog protection functions, pre-alarm indication over-current indication, load current indication, digital current analysis technology, and it can achieve a higher level of protection.

#### Panel and function description

Intelligent release panel



#### Tripping test port (TEST)

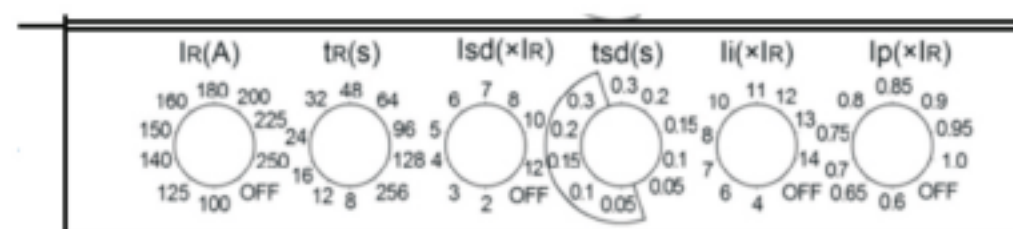
1 Tripping test input DC12V(+); 2 Tripping test input DC12V(-)

#### Panel adjustment knob as follows in turn:IR(A) Isd(xIR) li(xIR)

- IR:
- Isd
- li: 5

#### The r

- tR:
- tsd
- Ip:



follows:

## YCM8E Electronic Adjustable Circuit Breaker

### Selection Guide

YCM8 E - 160 P / 3 400 2 A

Product Code	Adjustable Type	Code of frame size current	Code of operating mode
YCM8	E	160	P
moulded case circuit breaker	E: electronic adjustable	nm=160 Inm=250 Inm=400 Inm=800	P: electric operation Z: rotary handle W: direct operation ① Electric operation DC1, DC2, DC3


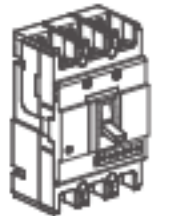
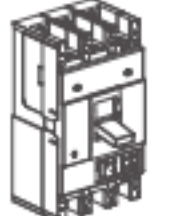
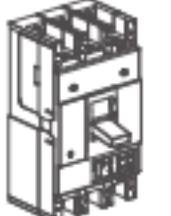
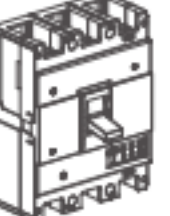
Pole Number	Code of Release Type and Internal Accessory	Application
3	400	2
3: three poles 4: four poles	2: intelligent release Accessory code, see accessory table	1: for distribution 2: for protecting the motor

### Code of Four-pole Product

A
A: N-pole without protection, cannot close or open B: N-pole without protection, can close and open C: N-pole with protection, can close and open D: N-pole with protection, cannot close or open

## YCM8E Electronic Adjustable Circuit Breaker

### Main Technical Data

Frame Current(A)	160	250	400	630	800	
Type	YCM8E-160H	YCM8E-250H	YCM8E-400H	YCM8E-630H	YCM8E-800H YCM8E-1000H YCM8E-1250H	
Pole number	3,4	3,4	3,4	3,4	3,4	
						
Rated Current (A)	12-32, 25-63, 40-100,63-160	100-250	200-400	400-630	400-630, 500-800, 630-1000, 850-1250	
Rated voltage (V)	AC400V	AC400V	AC400V	AC400V	AC400V	
Rated insulation voltage (V)	AC1000V	AC1000V	AC1000V	AC1000V	AC1000V	
Short Circuit Breaking Capacity (kA) Icu/lcs	AC400V 35/25	35/25	50/35	50/35	50/35	
Operating Circle Times	Charged ON	1500	1000	1000	1000	1000
	Not charged OFF	7000	7000	4000	4000	4000
Dimension(mm) a-b-c-ca	3P	90-155-88-115	105-165-88-115	140-257-103-155	140-257-103-155	210-257-103-155
	4P	120-155-88-115	140-165-88-115	185-257-103-155	185-257-103-155	280-257-103-155
Weight(kg)	3P	1.8	2.1	5.5	5.7	5.7
	4P	2.3	2.6	7.0	7.5	7.5
Electric operating device (MD)	•	•	•	•	•	
External drive handle	•	•	•	•	•	
Automatic release	Electronic type	Electronic type	Electronic type	Electronic type	Electronic type	

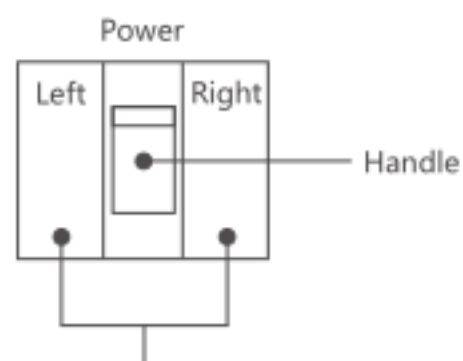


**YCM8 Series MCCB Accessories**

**Accessory table**

Accessories of YCM8, YCM8LE, YCM8RT, YCM8E are the same.

Model	YCM8-125	YCM8-160	YCM8-250	YCM8-400/630	YCM8-800 YCM8-1000 YCM8-1250
Breaking capacity	S, H	S, M, H	S, M, H	S, M, H	S, H
No. of poles	2, 3, 4	2, 3, 4	3, 4	3, 4	3, 4
Code	Accessory name				
208, 308					
210, 310					
220, 320					
230, 330					
240, 340					
260, 360					
270, 370					
218, 318					
228, 328					
238, 338					
248, 348					
268, 368					
278, 378					
280, 380					



The blank area cannot be equipped with accessory

● Alarm switch ○ Auxiliary switch □ Shunt release ■ Undervoltage release

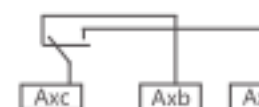
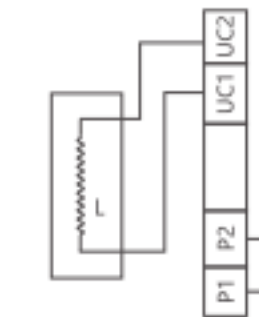
Note:

- The company can provide three new products of right auxiliary switch, left shunt release and left undervoltage release for choice.
- Within 220, 320, 240, 340, 270 and 370 specifications, auxiliary switch can be supplied with two pair switches, please specify in the order.
- P switches of YCM8LE and YCM8E can not be equipped with right auxiliary switch, right shunt release and right undervoltage release.

**YCM8 Series MCCB Accessories**

**Internal accessories**

Internal accessories of YCM8, YCM8LE, YCM8RT, YCM8E series include undervoltage release, shunt release and auxiliary alarm release, their main technical parameters and wiring diagram are as follows:



Undervoltage release	
Rated voltage of power supply	Main features
AC220, AC240 AC380, AC415	<p>A. Undervoltage release should act when voltage drops to within 70% and 35% of the rated voltage.</p> <p>B. The undervoltage release should not be able to close to prevent the circuit breaker from closing when voltage is lower than 35% of the rated voltage.</p> <p>C. The undervoltage release should ensure to be closed and ensure reliable closing of the circuit breaker when voltage is equal to or greater than 85% of the rated voltage.</p>
Shunt release	
Rated voltage of power supply	Main features
DC24, DC110 AC220, AC380	Shunt release can work reliably when the rated voltage value is at 70% and 110%.
Auxiliary alarm contact	
Rated voltage of power supply	Main features
Auxiliary switch AC 125V 5A, AC 250V 3A DC 125V0.4A, DC 125V0.2A	Shunt release can work reliably when the rated voltage value is at 70% and 110%.
Alarm switch AC 125 5A, AC 250V 3A DC 125V0.4A, DC 125V 0.2A	Provide differentiated signals for the circuit breaker at "normal work" and "fault free trip" positions.
Auxiliary alarm switch AC 125V 5A, AC 250V 3A DC 125V0.4A, DC125V0.2A	Provide differentiated signals for the circuit breaker at "close", "open" and "fault free trip" positions.

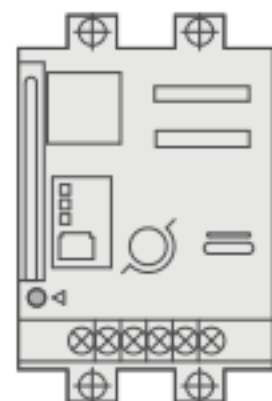
## Distribution Apparatus

### YCM8 Series MCCB Accessories

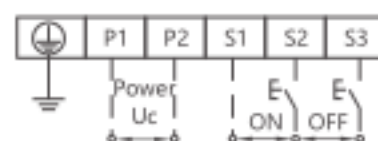
#### External accessories

The main technical parameters, dimensions and installation diagrams of external accessories for YCM8, YCM8LE, YCM8RT and YCM8E series are as follows:

DC3 electric operating mechanism.



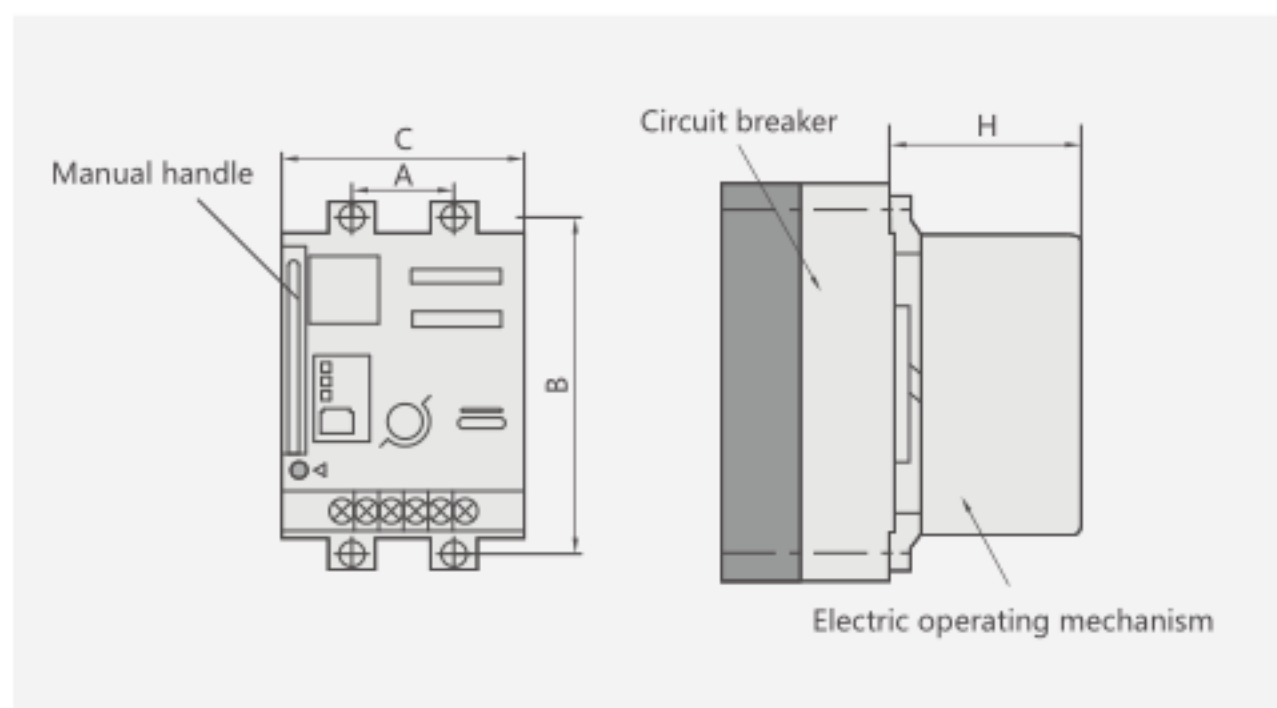
Wiring diagram



Warning

1. Manually prohibit counterclockwise operation
2. When it is manual operation, insert the handle at the starting point, clockwise rotate it 180°

Model & Spec.	DC3-63/30	DC3-100/30	DC3-250/30	DC3-400/30	DC3-630/30	
Applicable model	YCM8-125 YCM8LE-125 YCM8RT-125	YCM8-160 YCM8LE-160 YCM8RT-160 YCM8E-160	YCM8-250 YCM8LE-250 YCM8RT-250 YCM8E-250	YCM8-400 YCM8LE-400 YCM8RT-400 YCM8E-400 YCM8-630 YCM8LE-630 YCM8RT-630 YCM8E-630	YCM8-800 YCM8LE-800 YCM8RT-800 YCM8E-800	
Outline dim.	A	25	30	35	44	70
	B	112	132	126	194	243
	C	73	90	90	130	130
	H	95	98(89.5)	102(92)	152	153
Rated voltage (V)	AC-110-24, DC100-220, DC24			AC230, DC220 or AC110, DC110, DC24		
Starting current (A)	≤0.5			≤2		
Mechanical life (times)	14000		10000	5000		
Power (W)	14			35		



## Distribution Apparatus

### YCM8 Series MCCB Accessories

#### Operating characteristics

1. Power distribution circuit breaker are charged for every poles at the same time when the ambient air temperature is +40 °C , its inverse time action characteristics without humidity compensation are as shown in the following table:

Name of test current	Multiple of setting current	Conventional time	Initial state
		$I_n \leq 63$ $63 < I_n$	
Conventional non-tripping current	1.05	$\geq 1h$ $\geq 2h$	Cold state
Conventional tripping current	1.30	$< 1h$ $< 2h$	Thermal state

2. Motor protection circuit breaker are charged for every poles at the same time when the ambient air temperature is +40 °C , its inverse time action characteristics without humidity compensation are as shown in the following table:

Name of test current	Multiple of setting current	Conventional time	Initial state
		$I_n \leq 800$	
Conventional non-tripping current	1.0	$\geq 2h$	Cold state
Conventional tripping current	1.2	$< 2h$	Thermal state

3. Operating characteristics under short-circuit condition:

- Short-circuit current setting value of instantaneous release of the power distribution circuit breaker is  $10I_n$ ;
- Short-circuit current setting value of instantaneous release of the motor protection circuit breaker is  $12I_n$ ;
- Accuracy of the short-circuit current setting value of instantaneous release is  $\pm 20\%$ .

#### Order guide

- Name and model of circuit breaker;
- Rated current and setting multiple of circuit breaker;
- Accessory name and rated voltage.

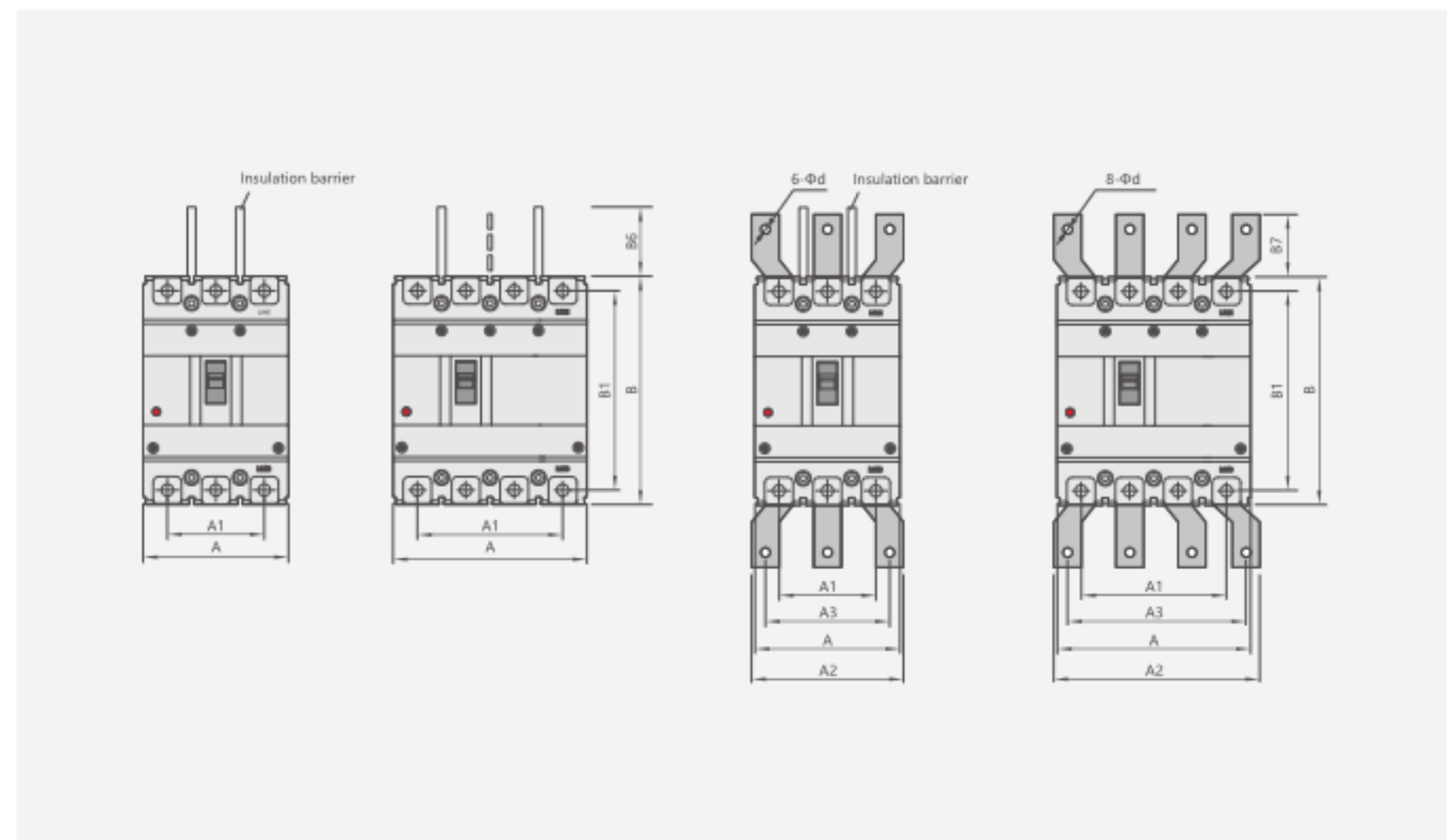
eg.: Order 50 sets of circuit breaker of power distribution 125 type, with rated current 100A standard type AC 380V undervoltage release, complex release, N-pole is not installed with overcurrent release and will close and open together with other three poles. Please write like this: YCM8-125L74370 100A 1 B Q 3, circuit breaker 50 sets.



### YCM8 Series MCCB Accessories

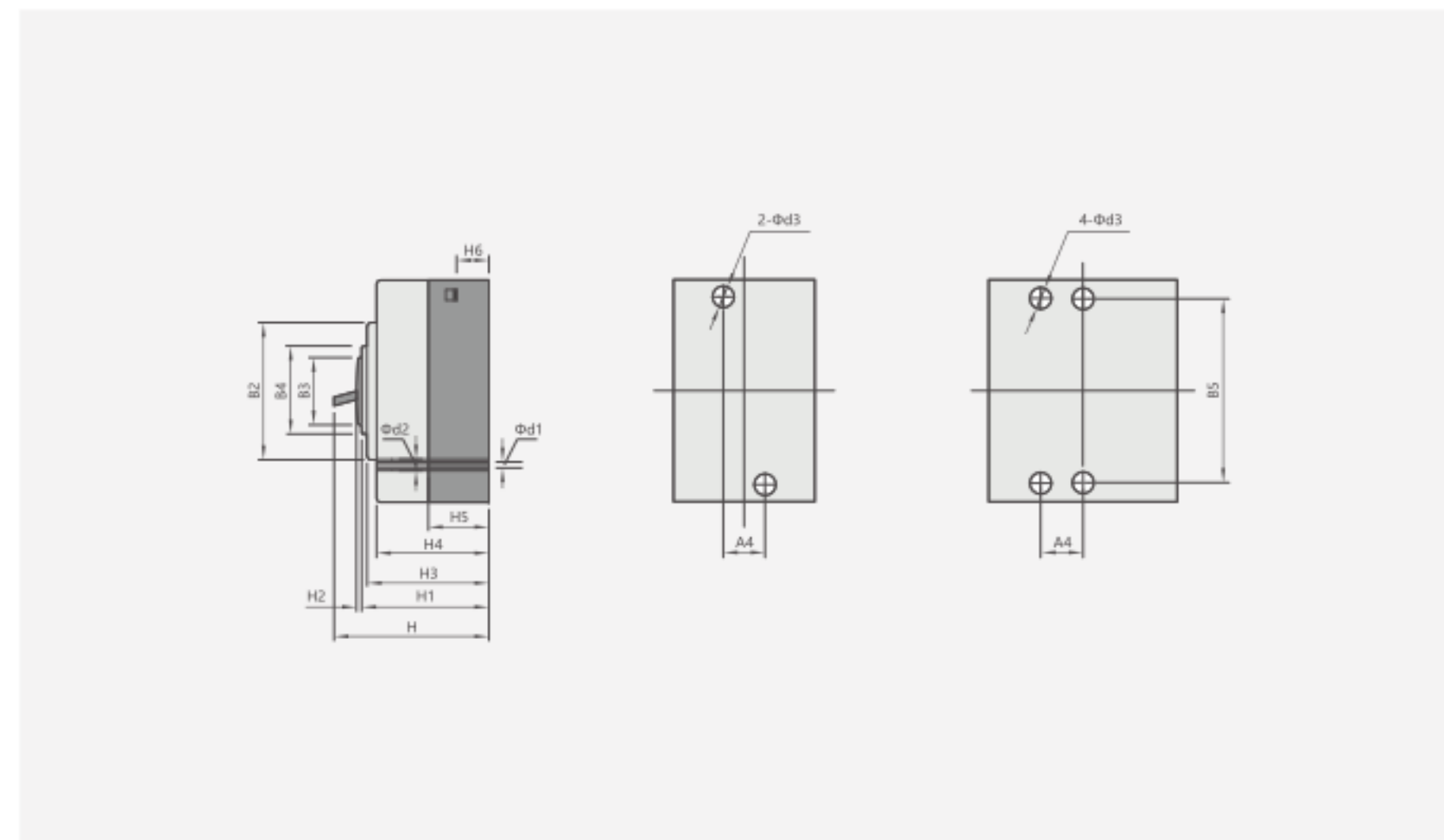
**Outline and installation dimensions**

Front-board outline and installation dimensions



Mode				Outline dim.								Installation dim.		Terminal screw		
Moulded-case circuit breaker (MCCB)	Residual-current circuit breaker (RCCB)	Thermomagnetic adjustable circuit breaker	Electronic adjustable circuit breaker	A		A1		A2		A3		A4	B5			
				3P	4P	3P	4P	3P	4P	3P	4P					
YCM8-125S	YCM8LE-125S	-	-	75	100	50	75	-	-	-	-					
YCM8-125H	YCM8LE-125H	-	-	75	100	50	75	-	-	-	-					
YCM8-160S	YCM8LE-160S	YCM8RT-160S	YCM8E-160	90	120	60	90	-	-	-	-					
YCM8-160H	YCM8LE-160H	YCM8RT-160H		90	120	60	90	-	-	-	-					
YCM8-250S	YCM8LE-250S	YCM8RT-250S	YCM8E-250	105	140	70	105	-	-	-	-					
YCM8-250H	YCM8LE-250H	YCM8RT-250H		105	140	70	105	-	-	-	-					
YCM8-400S	YCM8LE-400S	YCM8RT-400S	YCM8E-400	140	184	88	132	140	196	112	168					
YCM8-400H	YCM8LE-400H	YCM8RT-400H		140	184	88	132	140	196	112	168					
YCM8-630S	YCM8LE-630S	YCM8RT-630S	YCM8E-630	140	184	88	132	140	196	112	168					
YCM8-630H	YCM8LE-630H	YCM8RT-630H		140	184	88	132	140	196	112	168					
YCM8-800S	-	YCM8RT-800S	YCM8E-800	210	280	140	210	180	250	140	210					
YCM8-800H	YCM8LE-800H	YCM8RT-800H		210	280	140	210	180	250	140	210					
YCM8-1000H			YCM8E-1000 YCM8E-1250	210	280	140	210	180	250	140	210					
YCM8-1250H				210	280	140	210	180	250	140	210					

### YCM8 Series MCCB Accessories

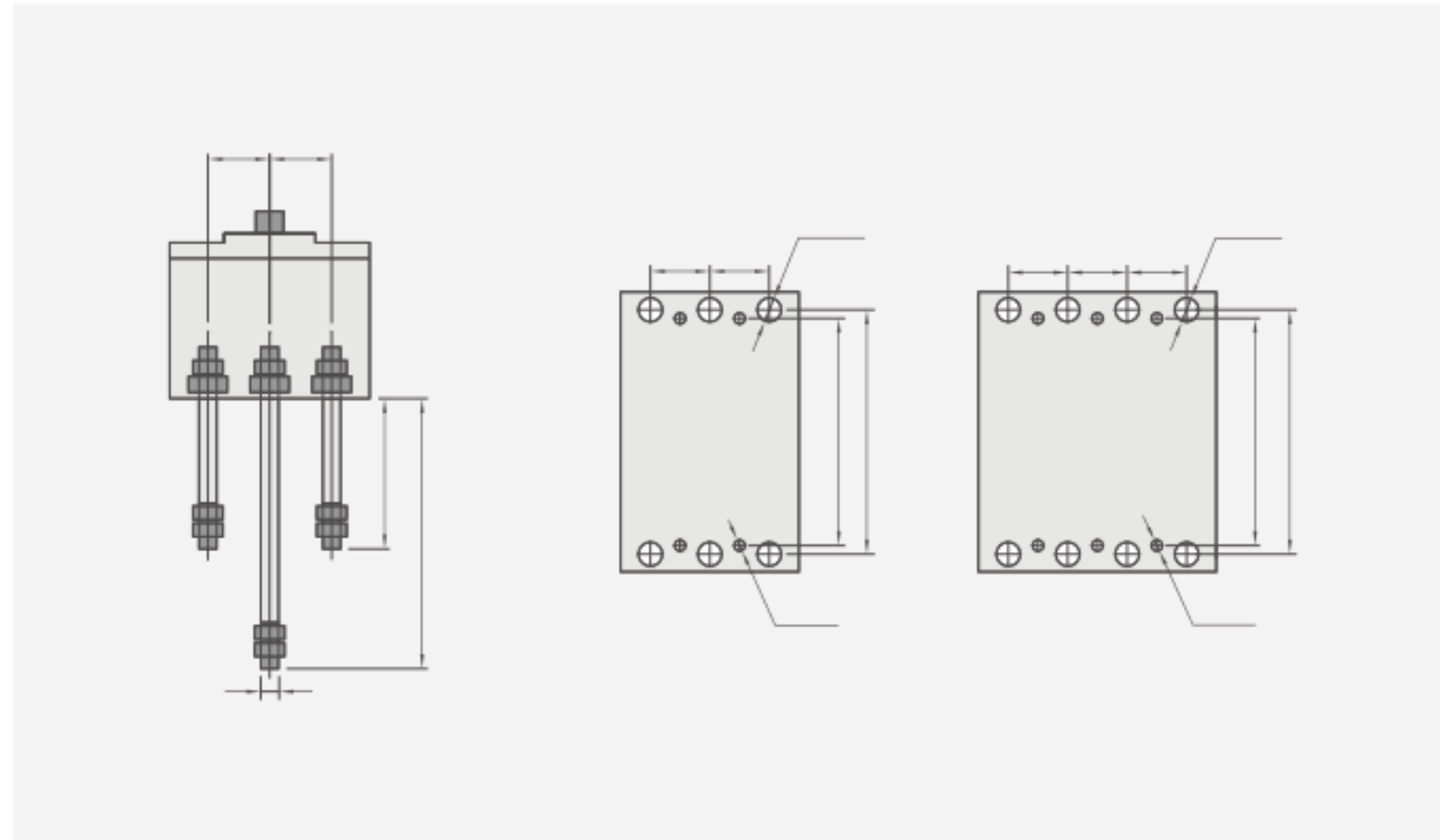


Outline dim.																	Installation dim.		Terminal screw	
B	B1	B2	B3	B4	B6	B7	H	H1	H2	H3	H4	H5	H6	Φd	Φd1	Φd2	Φd3	A4	B5	
130	114	84	50	59	50	-	90	72	4	68	61	40	23	-	4.5	8.5	5	25	111	M6/M8
130	114	84	50	59	50	-	90	72	4	68	61	40	23	-	4.5	8.5	5	25	111	M6/M8
155	134	102	50	59	50	-	90	72	4	68	61	40	23	-	4.5	8.5	5	30	132	M8
155	134	102	50	59	50	-	90	72	4	68	61	40	23	-	4.5	8.5	5	30	132	M8
165	134	102	50	59	50	-	115	91	4	88	81	60	23	-	4.5	8.5	5	30	132	M8
165	144	102	50	59	100	-	92	72	4	68	61	40	23	-	4.5	8.5	5	35	126	M8
165	144	102	50	59	100	-	92	72	4	68	61	40	23	-	4.5	8.5	5	35	126	M8
165	144	102	50	59	100	-	115	91	4	88	81	60	23	14	4.5	8.5	5	35	126	M8
257	230	150	90	99	110	43	155	107	5	103	97	64	30	14	7	13	7	44	194	M10
257	230	150	90	99	110	42	155	107	5	103	97	64	30	14	7	13	7	44	194	M10
257	230	150	90	99	110	43	155	107	5	103	97	64	30	14	7	13	7	44	194	M10
257	230	150	90	99	110	42	155	107	5	103	97	64	30	14	7	13	7	44	194	M10
275	243	150	90	102	110	87	155	107	5	103	97	64	26	14	8	14	7	70	243	M12
275	243	150	90	102	100	87	155	107	5	103	97	64	26		8	14	7	70	243	M12

**YCM8 Series MCCB Accessories**

**Outline and installation dimensions**

Dimension of back-board wiring

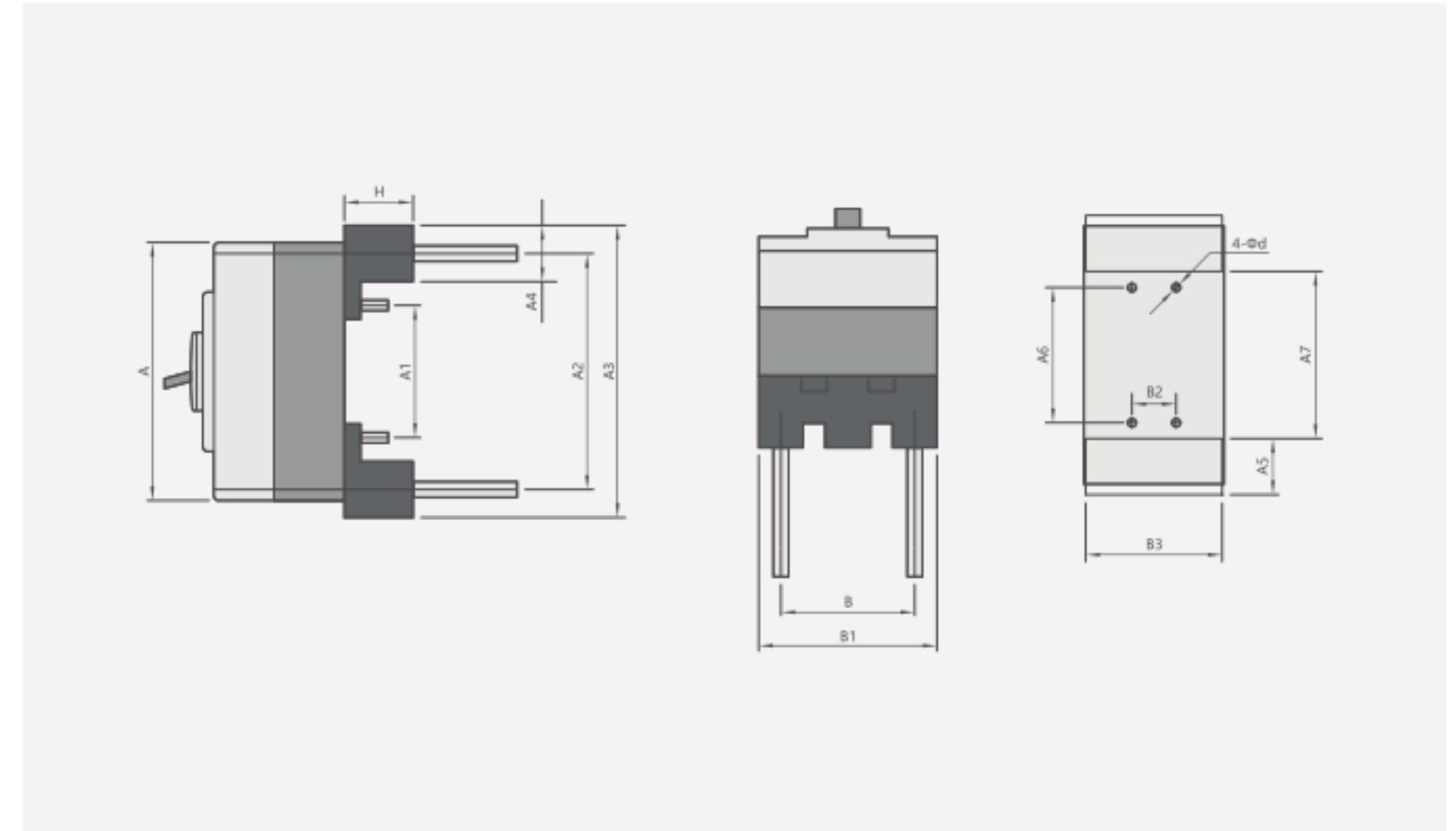


Mode				Dimension of back-board wiring							
Moulded-case circuit breaker (MCCB)	Residual-current circuit breaker (RCCB)	Thermomagnetic adjustable circuit breaker	Electronic adjustable circuit breaker	A1	B	B1	H	H1	Φd	Φd1	Φd2
YCM8-125S	YCM8LE-125S	-	-	25	114	111	62	87	6	14	5
YCM8-125H	YCM8LE-125H	-	-	25	114	111	62	87	6	14	5
YCM8-160S	YCM8LE-160S	YCM8RT-160S	YCM8E-160H	30	134	132	72	112	8	18	5
YCM8-160H	YCM8LE-160H	YCM8RT-160H		30	134	132	72	112	8	18	5
YCM8-250S	YCM8LE-250S	YCM8RT-250S	YCM8E-250H	35	144	126	87	126	12	24	5
YCM8-250H	YCM8LE-250H	YCM8RT-250H		35	144	126	87	126	12	24	5
YCM8-400S	YCM8LE-400S	YCM8RT-400S	YCM8E-400H	44	230	194	83	136	18	35	7
YCM8-400H	YCM8LE-400H	YCM8RT-400H		44	230	194	83	136	18	35	7
YCM8-630S	YCM8LE-630S	YCM8RT-630S	YCM8E-630H	44	230	194	83	136	18	35	7
YCM8-630H	YCM8LE-630H	YCM8RT-630H		44	230	194	83	136	18	35	7
YCM8-800S	-	YCM8RT-800S	YCM8E-800H	70	243	243	174	243	26	48	7
YCM8-800H	YCM8LE-800H	YCM8RT-800H		70	243	243	174	243	26	48	7
YCM8-1000H			YCM8E-1000H	70	243	243	174	243	26	48	7
YCM8-1250H			YCM8E-1250H	70	243	243	174	243	26	48	7

**YCM8 Series MCCB Accessories**

**Outline and installation dimensions**

Dimension of plug-in type wiring



Mode				Dimension of back-board wiring													
Moulded-case circuit breaker (MCCB)	Residual-current circuit breaker (RCCB)	Thermomagnetic adjustable circuit breaker	Electronic adjustable circuit breaker	A	A1	A2	A3	A4	A5	A6	A7	H	B	B1	B2	B3	Φd2
YCM8-125S	YCM8LE-125S	-	-	130	54	114	140	29	31	54	80	48	75	50	25	78	5.2
YCM8-125H	YCM8LE-125H	-	-	130	54	114	140	29	31	54	80	48	75	50	25	78	5.2
YCM8-160S	YCM8LE-160S	YCM8RT-160S	YCM8-160	155	54	134	168	38	40	54	92	52	90	60	30	93	6.5
YCM8-160H	YCM8LE-160H	YCM8RT-160H		155	54	134	168	38	40	54	92	52	90	60	30	93	6.5
YCM8-250S	YCM8LE-250S	YCM8RT-250S	YCM8-250	165	54	144	182	45	47	54	90	50	105	70	70	108	6.5
YCM8-250H	YCM8LE-250H	YCM8RT-250H		165	54	144	182	45	47	54	90	50	105	70	70	108	6.5
YCM8-400S	YCM8LE-400S	YCM8RT-400S	YCM8-400	257	140	230	282	55	55	140	171	60	134	87	44	136	8.2
YCM8-400H	YCM8LE-400H	YCM8RT-400H		257	140	230	282	55	55	140	171	60	134	87	44	136	8.2
YCM8-630S	YCM8LE-630S	YCM8RT-630S	YCM8-630	257	140	230	282	55	55	140	171	60	134	87	44	136	8.2
YCM8-630H	YCM8LE-630H	YCM8RT-630H		257	140	230	282	55	55	140	171	60	134	87	44	136	8.2
YCM8-800S	-	YCM8RT-800S	YCM8-800	275	155	243	298	55	56	155	187	60	206	140	70	208	8.2
YCM8-800H	YCM8LE-800H	YCM8RT-800H		275	155	243	298	55	56	155	187	60	206	140	70	208	8.2
YCM8-1000H				275	155	243	298	55	56	155	187	60	206	140	70	208	8.2
YCM8-1250H				275	155	243	298	55	56	155	187	60	206	140	70	208	8.2



## YCW1 Series Air Circuit Breaker

### General

YCW1 series intelligent air circuit breakers (hereinafter called ACB) are applied for the network circuit of AC 50Hz, rated voltage 400V, 690V and rated current between 630A and 6300A. Mainly used for distributing energy and protecting the circuit and power supply device against short-circuit, undervoltage, single-phase ground fault, etc. The ACB has intelligent protection function and the key parts adopt intelligent release. The release can make the accurate selective protection, which can avoid cutting off the power and improve the reliability of power supply. The products conform with IEC60947-1, IEC60947-2 standards.

### Type designation

YCW1 - 2000 / 3 + Installation + Control unit + Common use accessory + Optional accessory



- Rated current in scope of frame current  
2000 Type-in: 630A, 800A, 1000A, 1250A, 1600A, 2000A;  
3200 Type-in: 2000A, 2500A, 3200A;  
6300 Type-in: 4000A, 5000A, 6300A;
- Pole number  
3-default, 4-4 pole
- Installation  
Fixed type-horizontal, vertical  
Draw out type-horizontal, vertical  
Note: 2000 type have vertical wiring, others are horizontal wiring
- Control unit  
L type-dial switch mode, over-current protection (overload, short delay, instantaneous).  
2M type-digital display, over-current protection (overload, short delay, instantaneous), 4P or 3P+N have earthing protection (3M type is LCD display).  
2H type-communication function, digital display, over-current protection (overload, short delay, instantaneous), 4P or 3P+N have earthing protection (3H type is LCD display).
- Common use accessory  
Closing electromagnet-AC230V, AC400V, DC220V  
Undervoltage release-AC230V, AC400V, undervoltage instantaneous, undervoltage time-delay  
Release (close) magnetic iron-AC230V, AC400V, DC220V  
Electric operation mechanism-AC230V, AC400V, DC110V, DC220V  
Auxiliary contact-standard type (4a4b), special type (5a5b, 6a6b)  
Note: a-normal open, b-normal close
- Optional accessory  
Mechanical inter-lock:  
one circuit breaker (1lock+1key)  
two circuit breaker (steel cable inter-lock, connecting rod inter-lock, 2lock+1key)  
three circuit breakers (3locks+2keys, connecting rod inter lock)  
Automatic power transfer system  
Current transformer connected with neutral lead



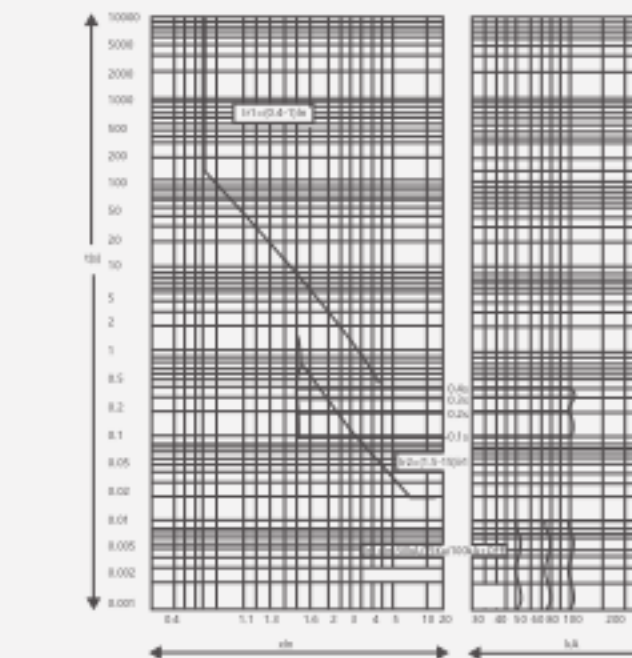
## YCW1 Series Air Circuit Breaker

### Operation conditions

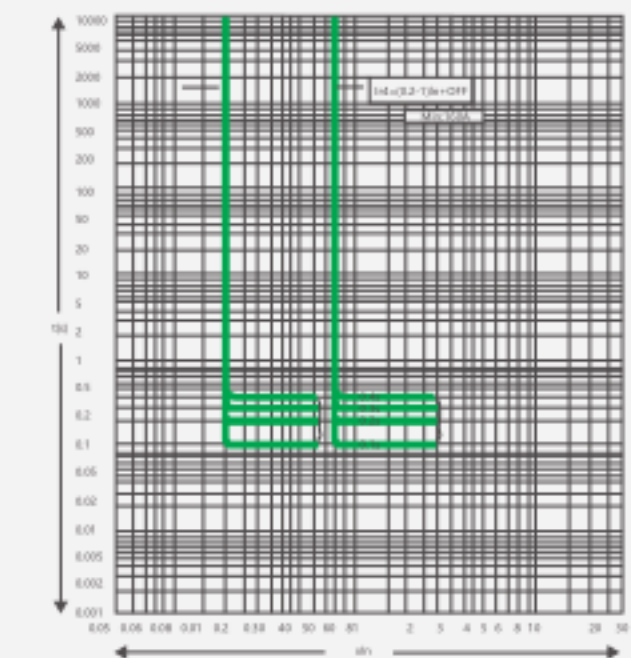
Item	Description
Ambient temperature	-5°C~+40°C (except special order products)
Altitude	≤2000m
Pollution grade	3
Safety category	Main circuit and undervoltage tripping coil is IV, other auxiliary and control circuit is III
Installation position	Vertical installed, tilt not exceed 5 degree
Environmental protection	Most of parts use recyclable and degradable materials
Isolating function	With isolating function

### Specifications

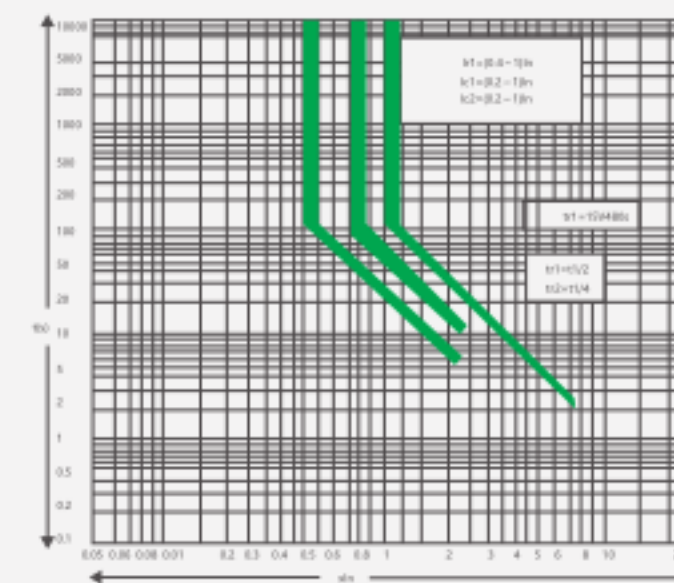
#### Curves



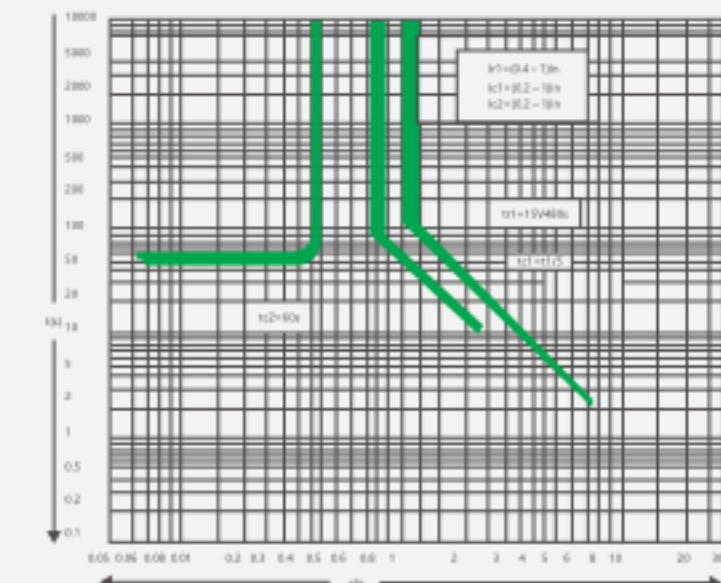
YCW1-2000-6300 Over current release time/current characteristic curve



YCW1-2000-6300 Earth fault protection time/current characteristic curve



YCW1-Load monitoring (1) time/current characteristic curve



YCW1-Load monitoring (2) time/current characteristic curve



## Distribution Apparatus

### YCW1 Series Air Circuit Breaker

Data

Type		YCW1-2000	YCW1-3200	YCW1-6300	
Pole		3P, 4P	3P, 4P	3P, 4P	
Using category		B	B	B	
Rated current I <sub>n</sub>	A	630, 800, 1000 1250, 1600, 2000	2000, 2500, 3000	4000, 5000, 6300	
Rated frequency	Hz	50	50	50	
Rated operation voltage U <sub>e</sub>	V	400, 690	400, 690	400, 690	
Rated insulation voltage U <sub>i</sub>	V	800	800	800	
Arcing distance	mm	0	0	0	
Rated impulse withstanding voltage U <sub>imp</sub>	V	8000	8000	8000	
Rated operation short circuit breaking capacity I <sub>cs</sub> (O-t-CO)	400V	kA	40	65	100
	660V	kA	40	50	65
Rated limiting short circuit breaking capacity I <sub>cu</sub> (O-t-CO)	400V	kA	65	80	120
	660V	kA	50	65	75
Rated short time withstanding current I <sub>cw</sub> (O-t-CO, AC400V 0.4S)	400V	kA	40	50	80
Operation life	Per hour	times	20	20	10
	Electrical	times	1000	500	500
	Mechanical	times	10000	5000	5000
Full breaking time		ms	20~30	20~30	20~30
Full closing time		ms	55~70	55~70	55~70
Power consumption	3P	W	360	1200	2000
	4P	W	450	1750	2300
Resistance of each pole	Fixed type	μΩ	11	9	-
	Draw out type	μΩ	20	14	10
Dimensions (L×W×H)	3P fixed type	mm	362×323×402	422×323×402	
	3P draw out type	mm	375×461×452	435×471×452	
	4P fixed type	mm	457×323×402	537×323×402	
	4P draw out type	mm	470×461×452	550×471×452	
Approximate weight	3P fixed type	kg	41	55	
	3P draw out type	kg	71	95	245
	4P fixed type	kg	51.5	65	-
	4P draw out type	kg	86	115	260

## Distribution Apparatus

### YCW1 Series Air Circuit Breaker

Overload protection data

Overload protection	YCW1-2000~6300						
Adjust scope I <sub>r1</sub>	(0.4-1)I <sub>n</sub> (pole difference 2%)						
1.05 I <sub>r1</sub>	h	≥2h non-tripping					
1.3 I <sub>r1</sub>	h	≤1h tripping					
1.5 I <sub>r1</sub>	s	15	30	60	120	240	480
2.0 I <sub>r1</sub>	s	8.4	16.9	33.7	67.5	135	270
Accuracy	%	±15					

#### Short circuit, short time delay

Adjust scope I <sub>r1</sub> I <sub>r2</sub>	(0.4-15)I <sub>n</sub> (pole difference 2%)						
Delay time t <sub>r2</sub>	ms	100, 200, 300, 400					
Accuracy	%	±15					

#### Short circuit, instantaneous

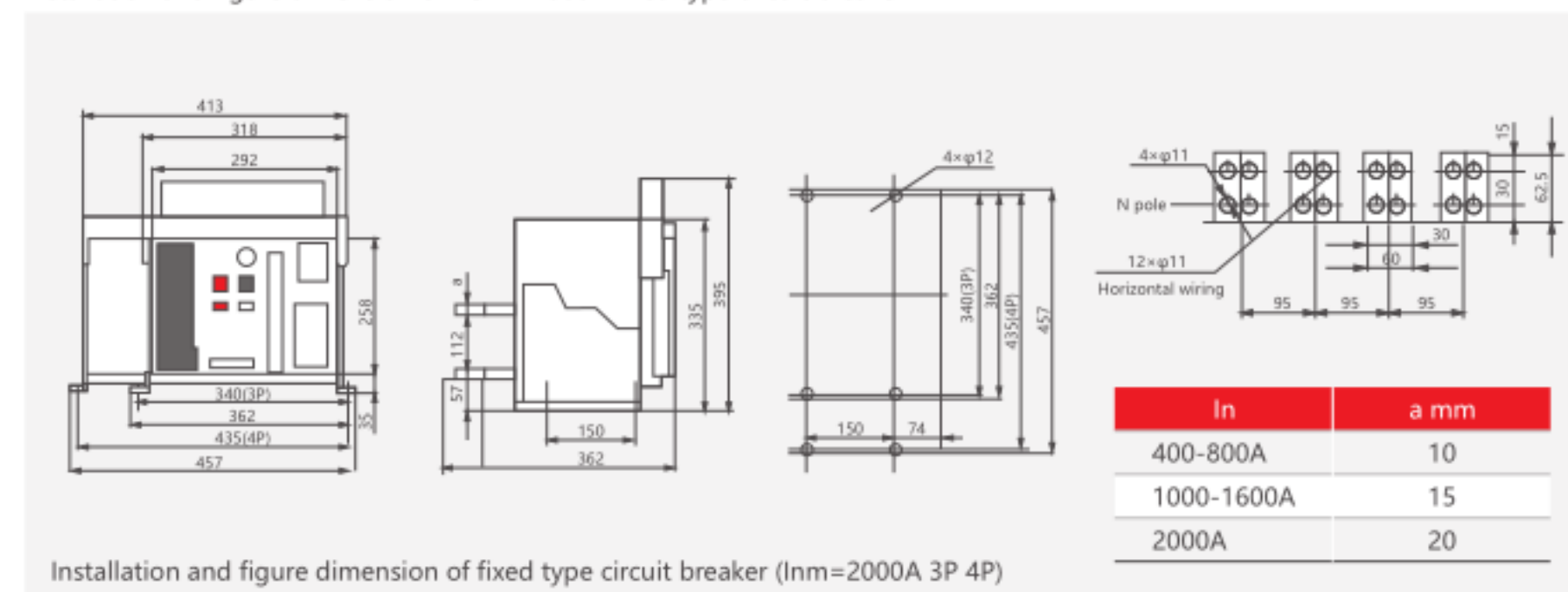
	YCW1-2000	YCW1-3200	YCW1-6300	
Adjust scope I <sub>r1</sub> I <sub>r3</sub>	1I <sub>n</sub> -50kA			
Accuracy	%	±15	±15	±15

#### Load monitoring output

	YCW1-2000~6300	
Load adjust scope I <sub>c1</sub>	(0.2-1)I <sub>n</sub> (pole difference 2%)	
Delay time t <sub>c1</sub>	t <sub>r1</sub> × 0.5	
Load adjust scope I <sub>c2</sub>	(0.2-1)I <sub>n</sub> (pole difference 2%)	
Delay time t <sub>c2</sub>	t <sub>r1</sub> × 0.25 (anti-time limit)	
Accuracy	s	60 (set time limit)
	%	±10

### Overall and mounting dimensions

Installation and figure dimension of YCW1-2000A fixed type circuit breaker



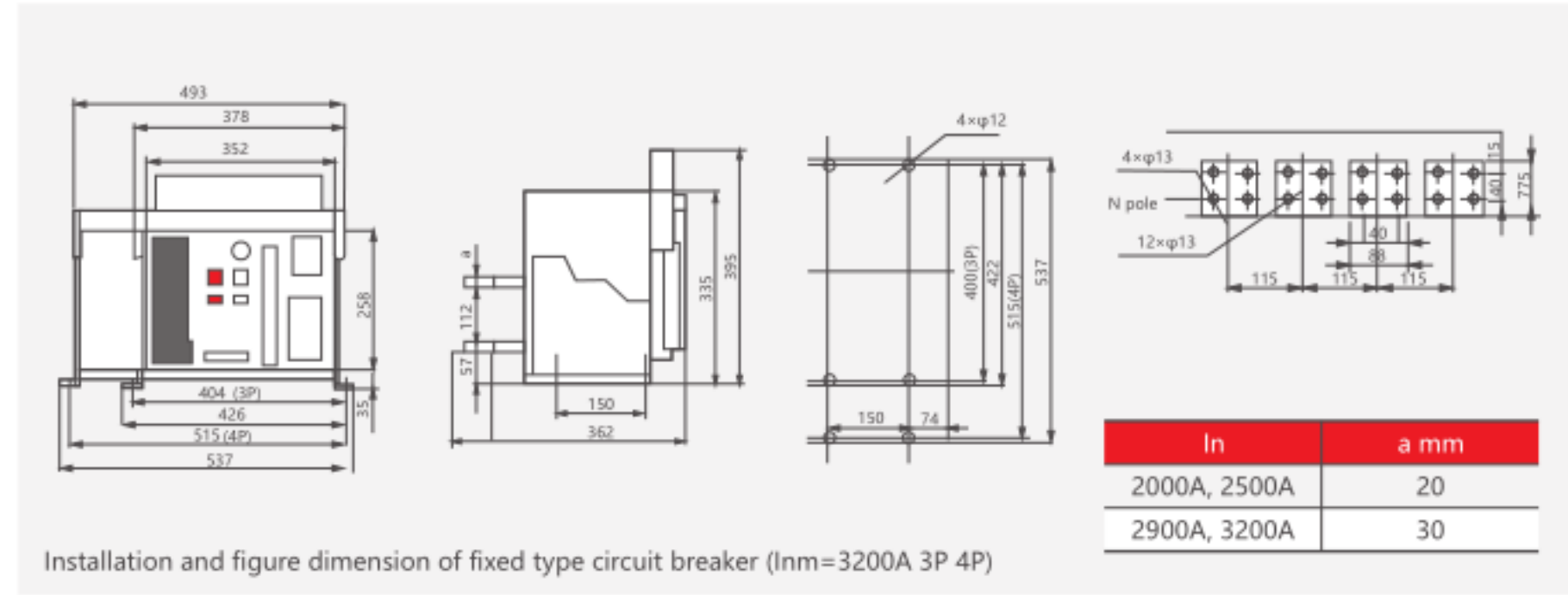
Installation and figure dimension of fixed type circuit breaker (I<sub>nm</sub>=2000A 3P 4P)



## Distribution Apparatus

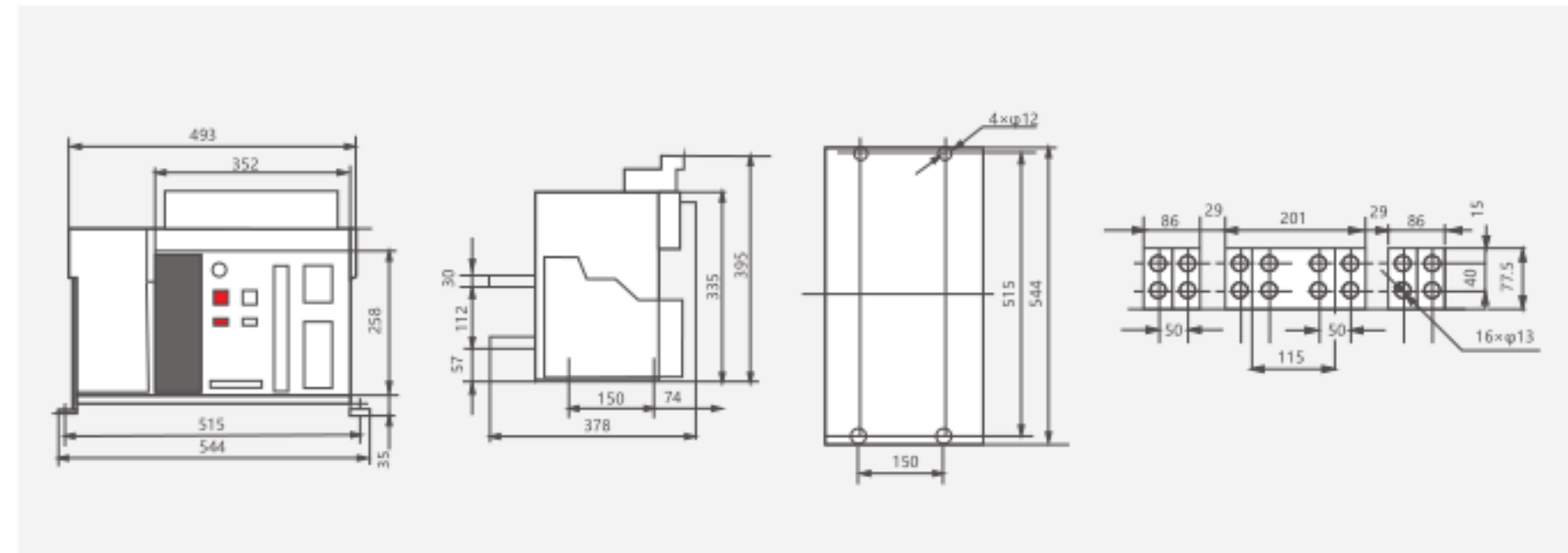
### YCW1 Series Air Circuit Breaker

Installation and figure dimension of YCW1-3200A fixed type circuit breaker



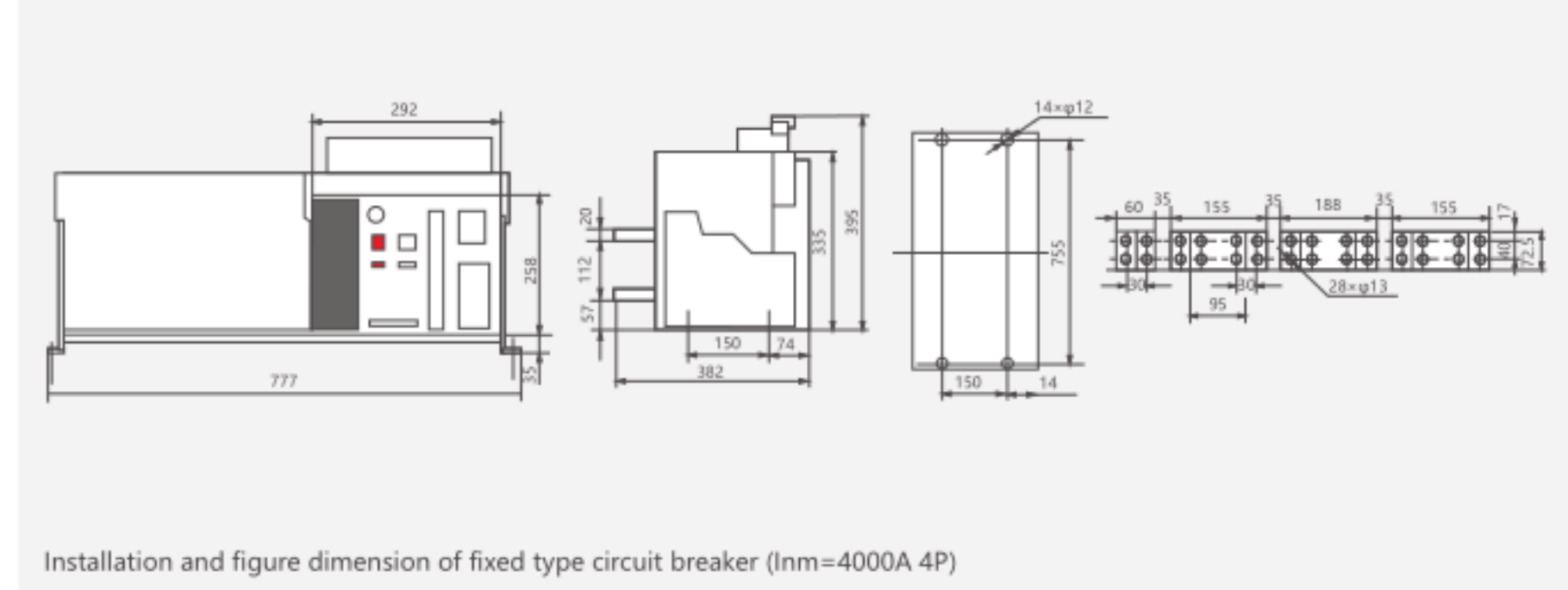
Installation and figure dimension of fixed type circuit breaker (Inm=3200A 3P 4P)

Installation and figure dimension of YCW1-4000A fixed type circuit breaker



Installation and figure dimension of fixed type circuit breaker (Inm=4000A 3P)

Installation and figure dimension of YCW1-2000A draw-out type circuit breaker

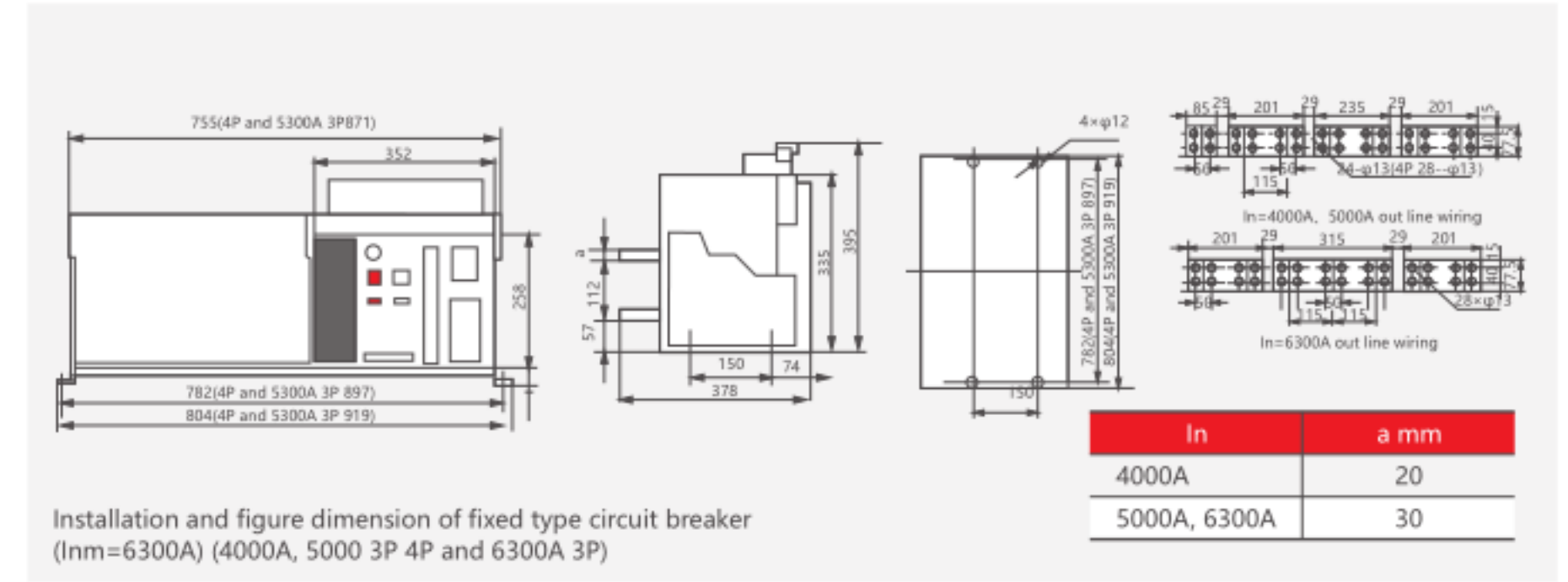


Installation and figure dimension of fixed type circuit breaker (Inm=4000A 4P)

## Distribution Apparatus

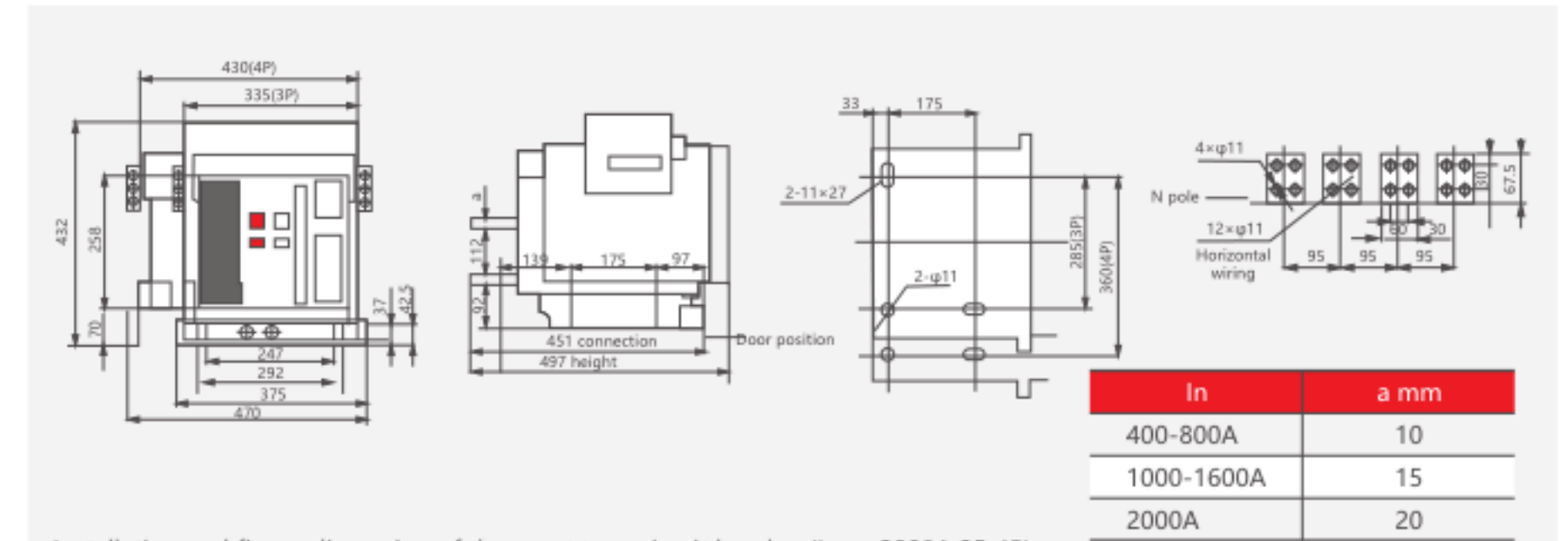
### YCW1 Series Air Circuit Breaker

Installation and figure dimension of YCW1-6300A fixed type circuit breaker



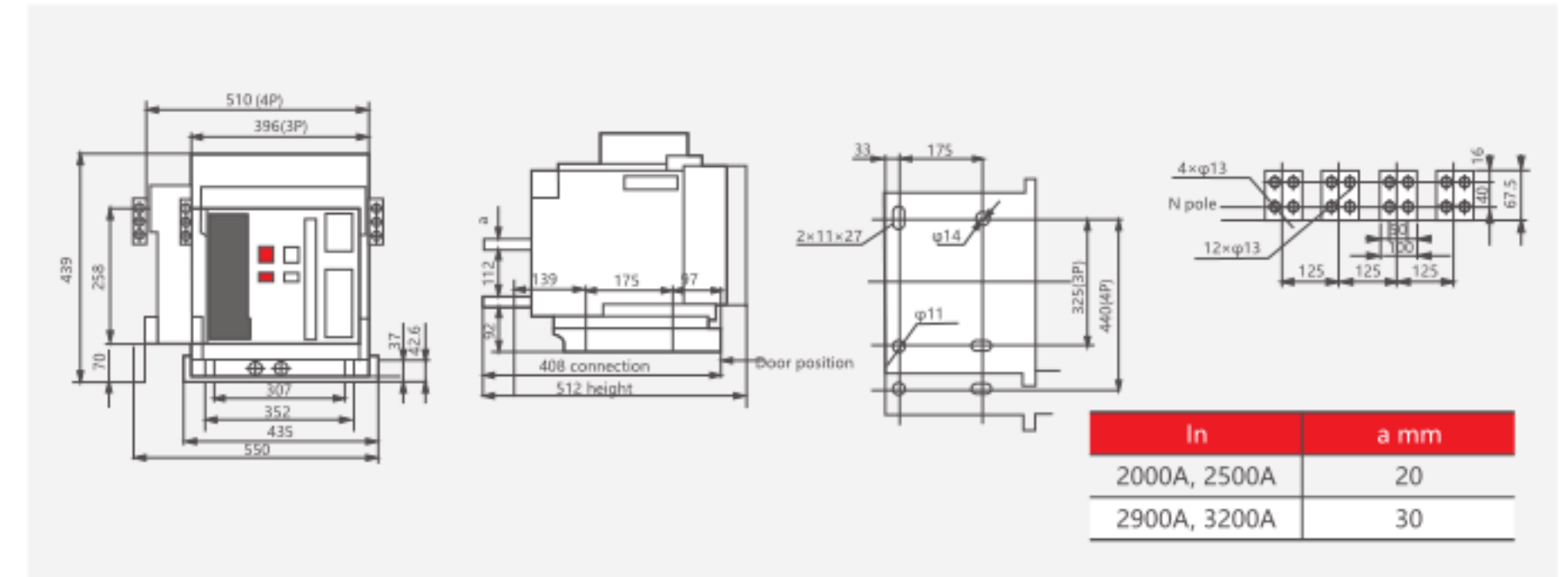
Installation and figure dimension of fixed type circuit breaker (Inm=6300A) (4000A, 5000 3P 4P and 6300A 3P)

Installation and figure dimension of YCW1-4000A draw-out type circuit breaker



Installation and figure dimension of draw-out type circuit breaker (Inm=2000A 3P 4P)

Installation and figure dimension of YCW1-3200A draw-out type circuit breaker

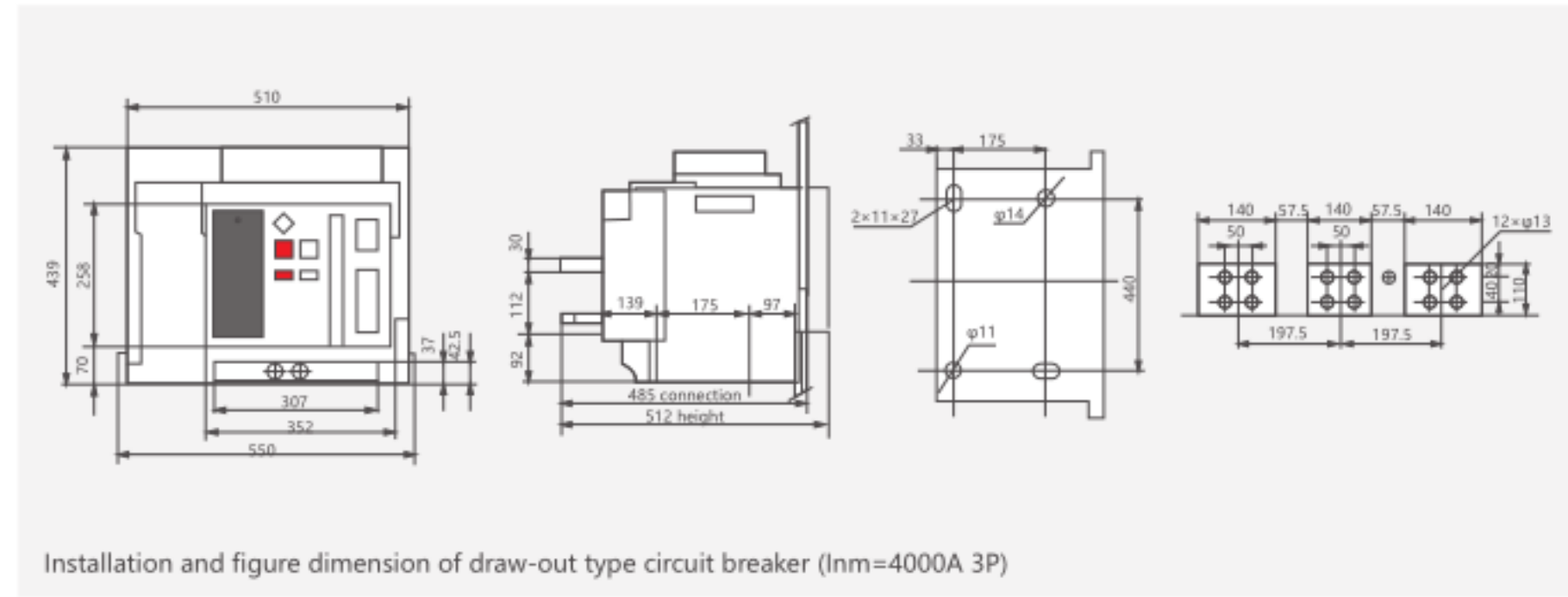


In	a mm
2000A, 2500A	20
2900A, 3200A	30

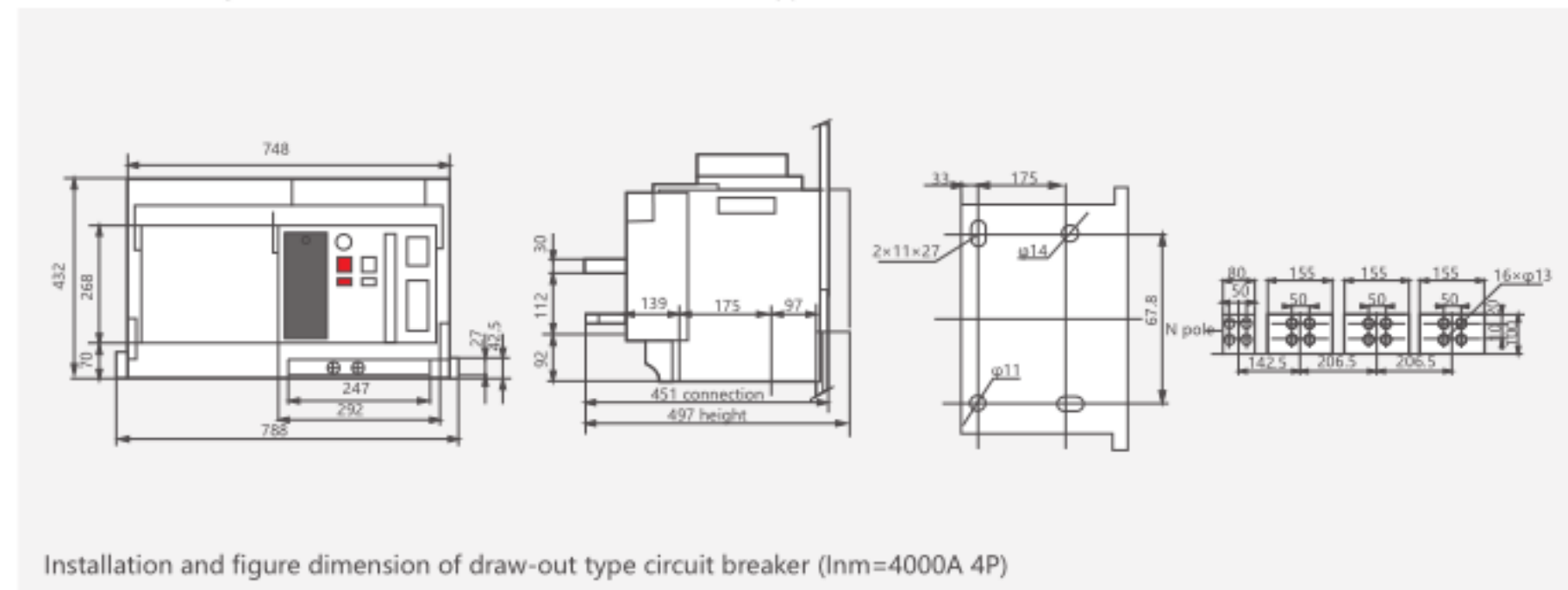
## Distribution Apparatus

### YCW1 Series Air Circuit Breaker

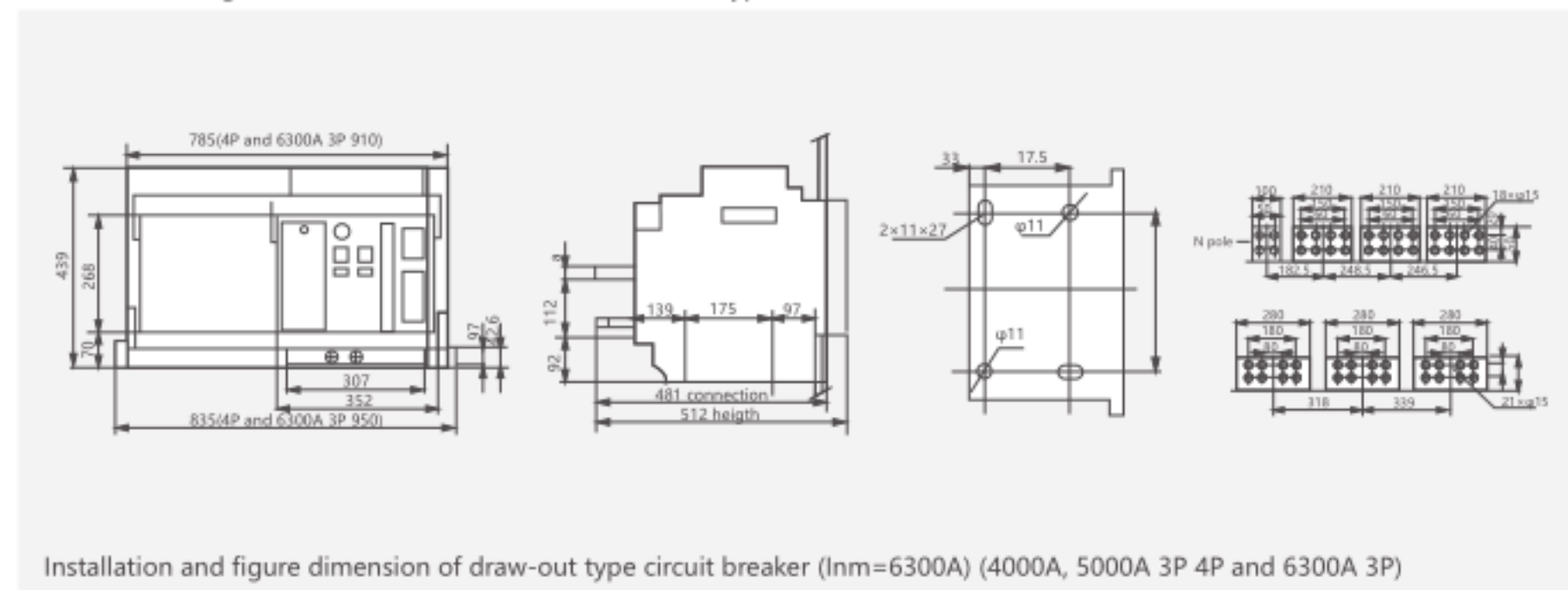
Installation and figure dimension of YCW1-4000A draw-out type circuit breaker



Installation and figure dimension of YCW1-4000A(4P) draw-out type circuit breaker



Installation and figure dimension of YCW1-6300A draw-out type circuit breaker

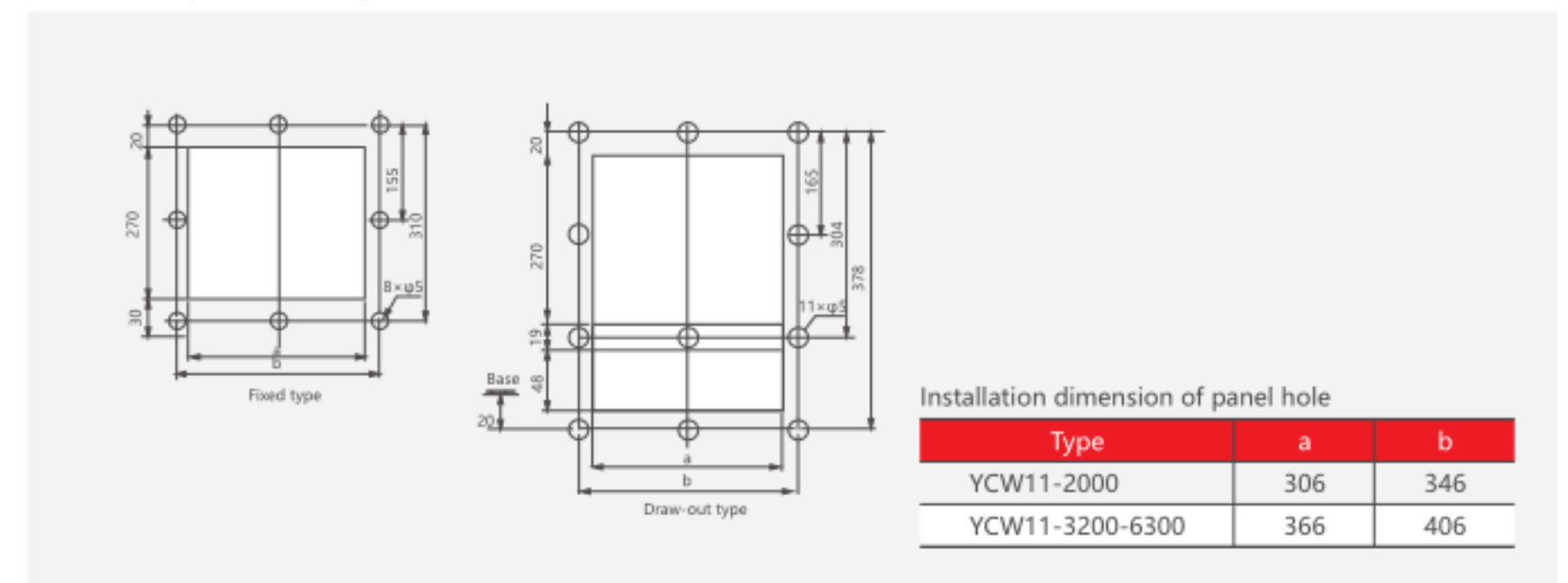


## Distribution Apparatus

### YCW1 Series Air Circuit Breaker

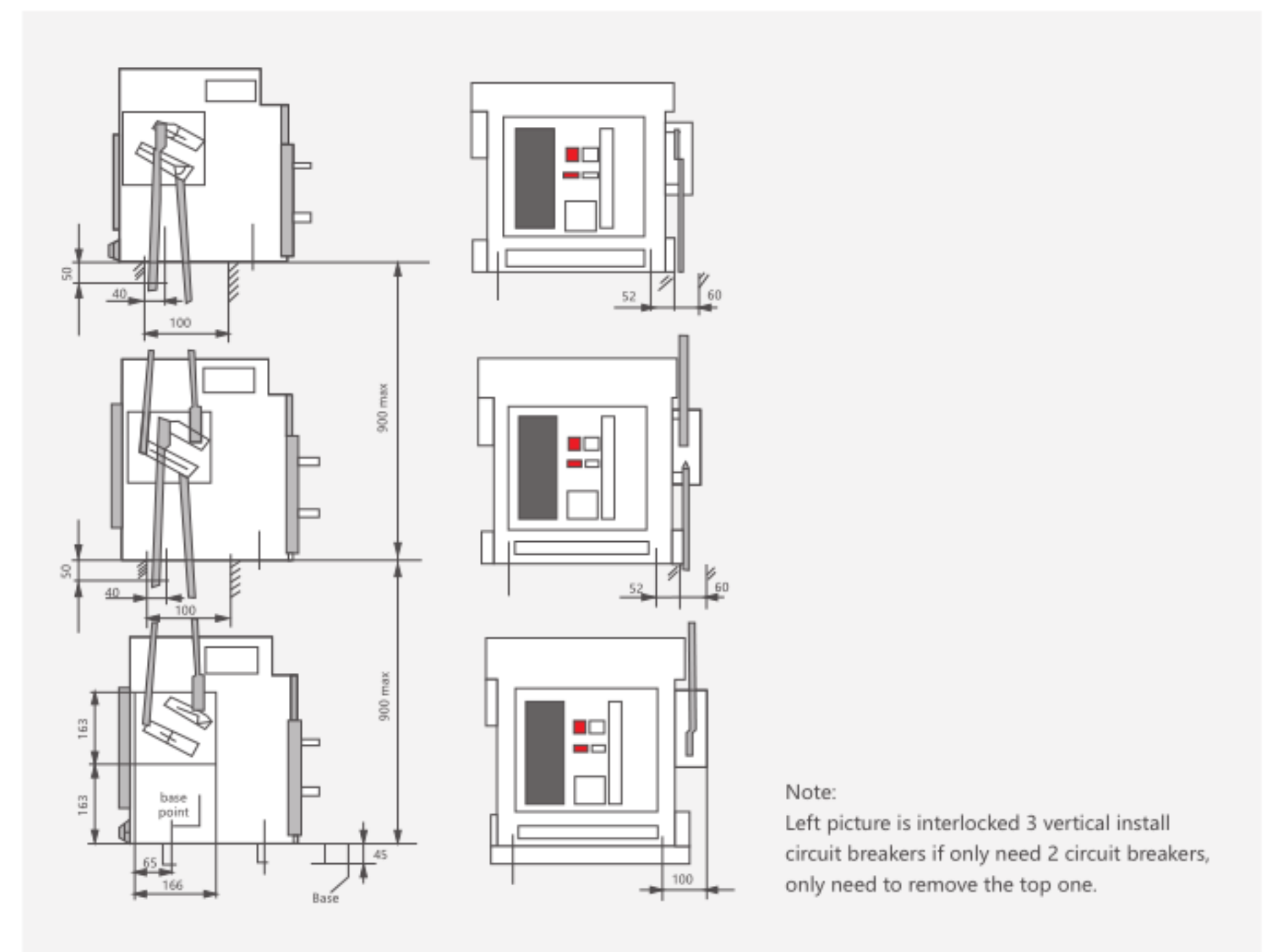
Installation and figure dimension of draw-out type circuit breaker (Inm=3200A 3P 4P)

Dimension of panel hole see picture and table Unit:mm



Interlock device of circuit breaker see picture Unit:mm

Interlock device of vertical install circuit breaker

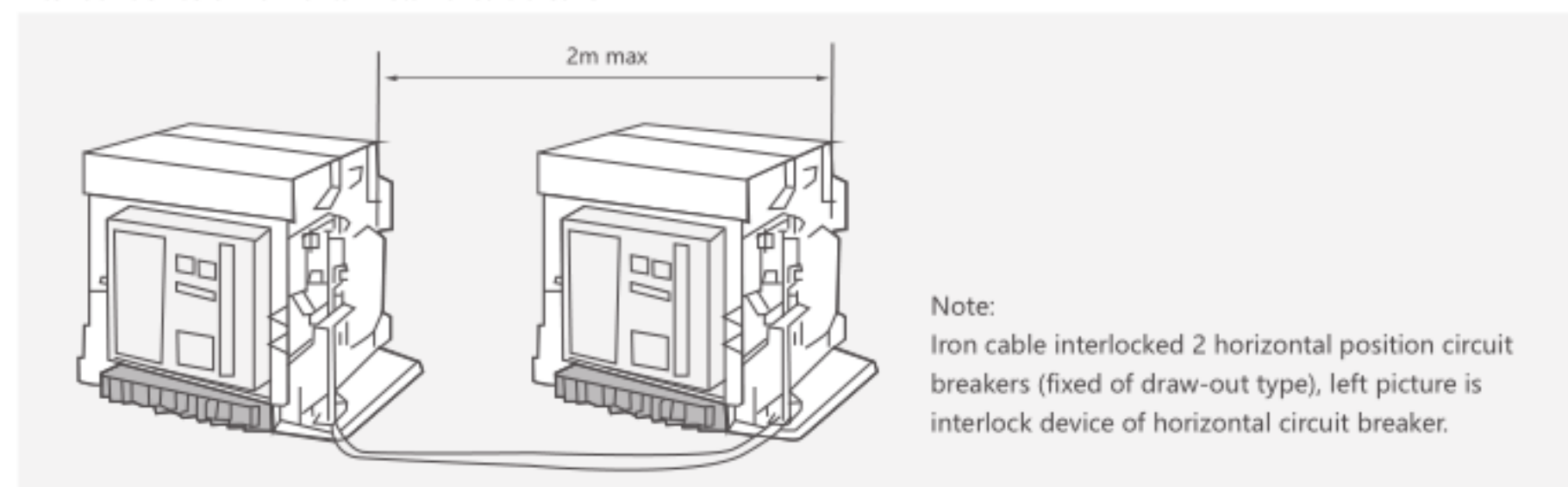




## Distribution Apparatus

### YCW1 Series Air Circuit Breaker

Interlock device of horizontal install circuit breaker



### Characteristic of intelligent controller

Basic function		
		Overload long time-delay anti-time limit protection
		Short circuit short time-delay anti-time limit protection
		Short circuit short time-delay timing protection
		Short circuit instantaneous protection
		Insulate earth fault protection
Display function		
Current (select 1)	Digital display	Can display L1, L2, L3, I <sub>max</sub> IG(earth), IG(Neutral)
Voltage (select 2) Power (select 2)	Digital display	Can display U <sub>12</sub> , U <sub>23</sub> , U <sub>31</sub> , U <sub>min</sub> P
Power factor (select 2)		COSΦ
Warning function		
Over current fault warning	Light-emitting diodes on panel	After fault trip indicator light corresponding
Fault category identification	Light-emitting diodes on panel	Overload log time-delay Short circuit short time-delay Short circuit instantaneous Earth fault
Fault phase sequence	Digital display	Display the fault phase sequence
Current		Breaking current
Time display		Breaking time
Contact loss indication	Digital display	Display percentage of loss
Self-diagnosis function		Send the error signal

## Distribution Apparatus

### YCW1 Series Air Circuit Breaker

Testing function		
Panel key	Tripping	Test the time current characteristic of release and situation of operation device
Remote monitoring function	Non-tripping	Test the time current characteristic of release
Remote monitoring code signal optocoupler	Relay (contain power) module	Output of various working condition
Communication function		
Communicate type	RS485 (communication) I/O	User should consult with the manufacturer

### Electrical accessories

Under-voltage release	Rated working voltage U <sub>e</sub> (V)	AC400 AC230
	Acting voltage (V)	(0.35~0.7) U <sub>e</sub>
	Reliable close voltage (V)	(0.85~1.1) U <sub>e</sub>
	Non close voltage (V)	≤0.335U <sub>e</sub>
	Power loss	12VA (YCW1-1000 5VA)
Shunt release	Rated control power voltage U <sub>s</sub> (V)	AC400 AC230 DC220 DC110
	Acting voltage (V)	(0.7~1.1) U <sub>e</sub>
	Power loss	40VA 40W (YCW1-1000 5VA)
	Open time	less than 30ms
Close electromagnetic iron	Rated control power voltage U <sub>s</sub> (V)	AC400 AC230 DC220 DC110
	Acting voltage (V)	(0.85~1.1) U <sub>e</sub>
	Power loss	40VA 40W (YCW1-1000 5VA)
	Open time	less than 70ms
Motor operating device	Rated control power voltage U <sub>s</sub> (V)	AC400 AC230 DC220 DC110
	Acting voltage (V)	(0.85~1.1) U <sub>e</sub>
	Power loss	40VA 40W (YCW1-1000 5VA)
	Open time	less than 5s

# YCW1 Air Circuit Breaker

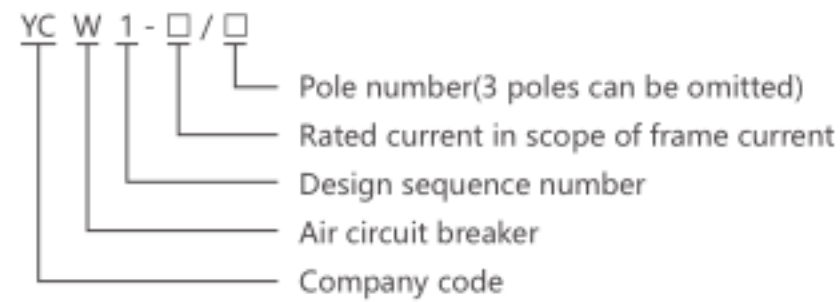


## YCW1-1000 Intelligent Air Circuit Breakers

### General

YCW1-1000 series intelligent air circuit breakers(hereinafter called ACB) are applied for the network circuit of AC 50Hz,rated voltage 400V,690V and rated current up to 1000A.Mainly used for distributing energy and protecting the circuit and power supply device against short-circuit,undervoltage,single-phase ground fault etc. The ACB have intelligent protection function and the key parts adopt intelligent release. The release can make the accurate selective protection, which can avoid cutting off the power and improve the reliability of power supply. The products confirm with IEC60947-2,GB14048.2.

### Type designation



Category

Installation: Fixed type, draw out type.

Operation: Motor-driven, hand.

### Main Technical Parameters

Type	YCW1-1000					
Rated short circuit breaking capacity	I <sub>cu</sub> =42kA 400V		I <sub>cs</sub> =I <sub>cw</sub> /1s=30kA 400V			
	I <sub>cu</sub> =25kA 690V		I <sub>cs</sub> =I <sub>cw</sub> /1s=20kA 690V			
Rated current I <sub>n</sub> (A)	200	400	630	800	1000	
Pole	3P, 4P					
Rated operation voltage U <sub>e</sub> (V)	400					
Rated insulation voltage U <sub>i</sub> (V)	690					
N pole max continuous current I <sub>n</sub> (A)	100%I <sub>n</sub>					
Breaking time (ms)	23~32					
Control unit	Standard (M)	●	●	●	●	●
	Multi-function (H)	●	●	●	●	●
Operation life	Electrical	1000				
	Mechanical	maintenance-free 3000 maintenance 10000				
Connection mode	Horizontal, vertical					
Weight	3P/4P draw out type	38/55				
	3P/4P fixed type	22/26.5				

# YCW1 Air Circuit Breaker

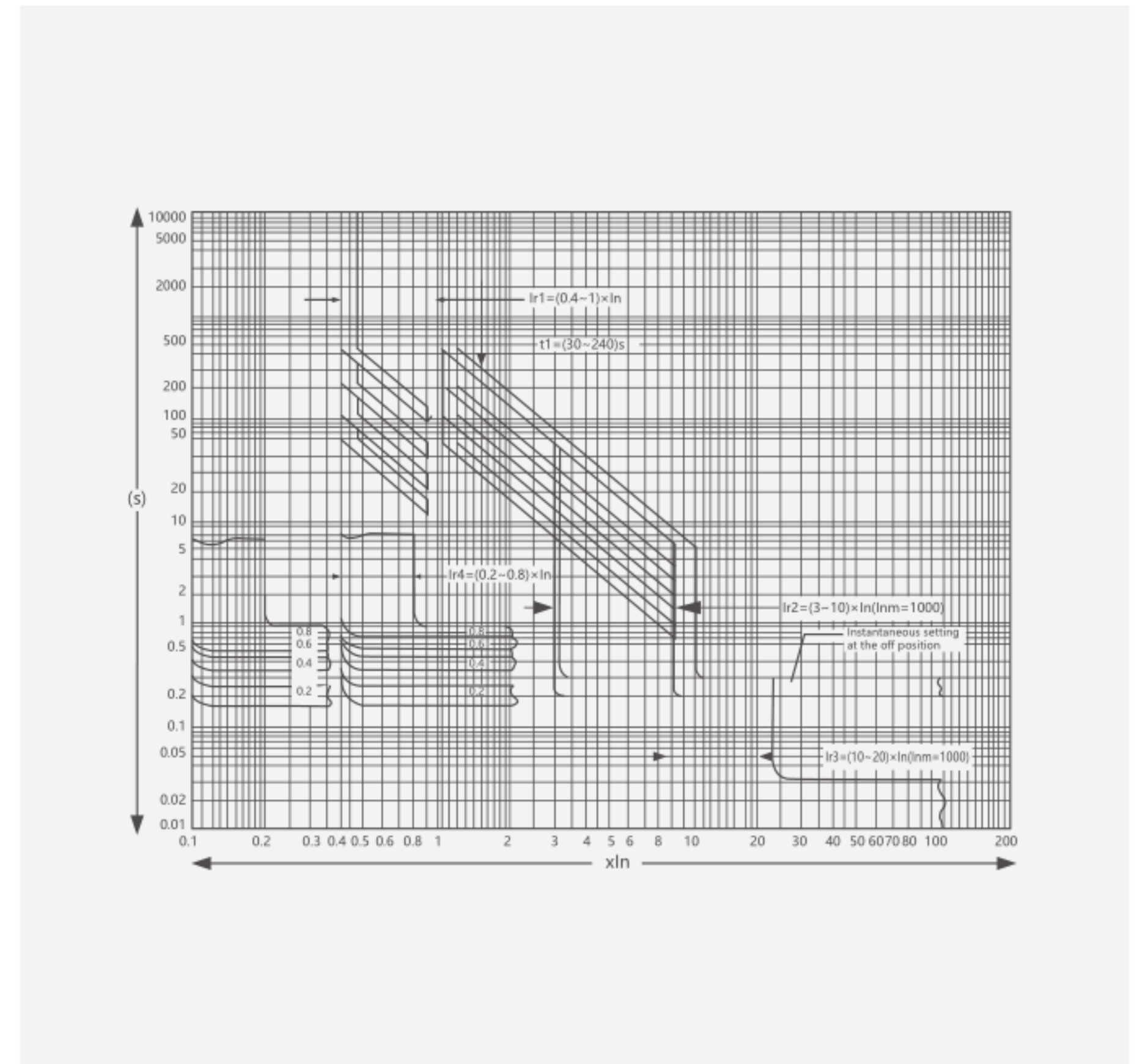
## Intelligent controller protection characteristic

Definite setting and error for Intelligent Controller

Long time-delay		Short time-delay		Instantaneous		Earthing fault	
I <sub>r1</sub>	I <sub>r2</sub>	Error	I <sub>r3</sub>	Error	I <sub>r3</sub>	Error	
(0.4~1)I <sub>n</sub>	(1.5~15)I <sub>n</sub>	±10%	1I <sub>n</sub> ~30kA	±15%	(0.2~1)I <sub>n</sub>	±10%	
(0.4~1)I <sub>n</sub>	☆(2~10)I <sub>n</sub>	±10%	☆(5~20)I <sub>n</sub>	±15%	☆(0.2~0.8)I <sub>n</sub>	±10%	

Note: L type intelligent controller setting with ☆

## Over-current and earthing fault characteristic curve figure

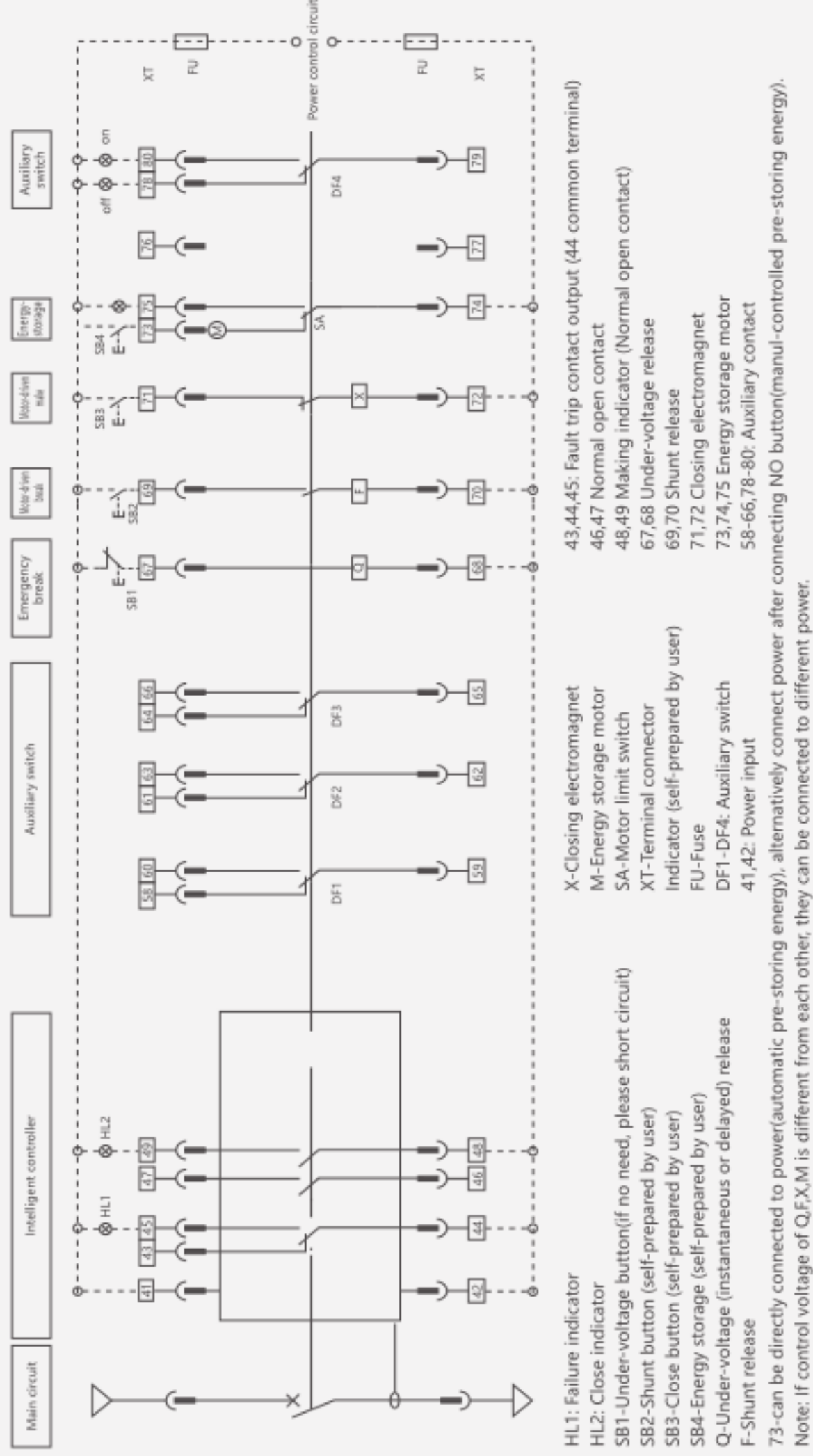




Secondary circuit wiring

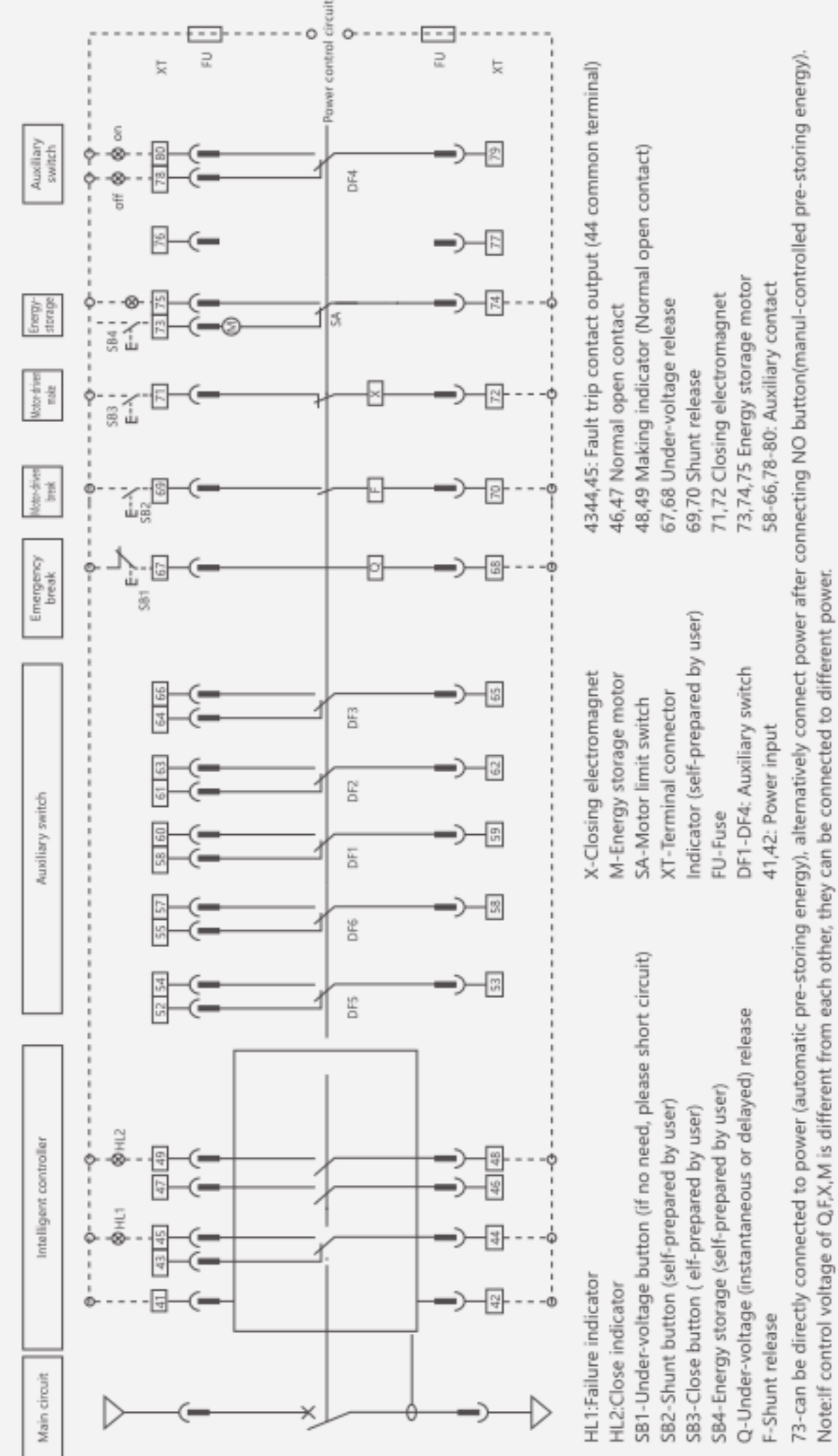
The circuit breaker has 40pcs terminal connector, please refer to picture1, picture2, picture3.

Auxiliary contact and four groups change over contact circuit wiring (Standard type)

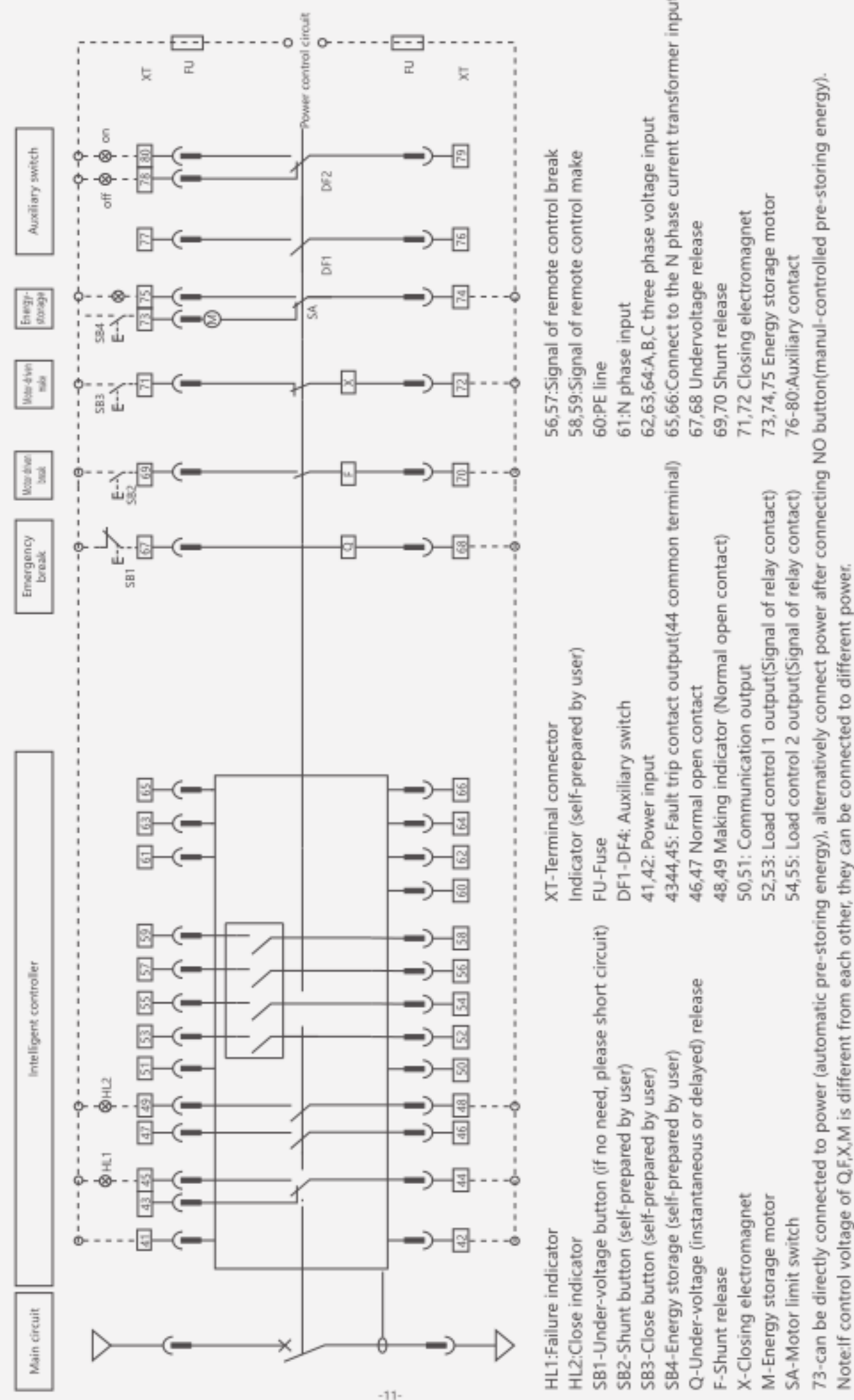


Picture 1 YCW1-1000 Intelligent Air circuit breaker Secondary circuit wiring

Auxiliary contact and six groups change over contact circuit wiring (Special type)



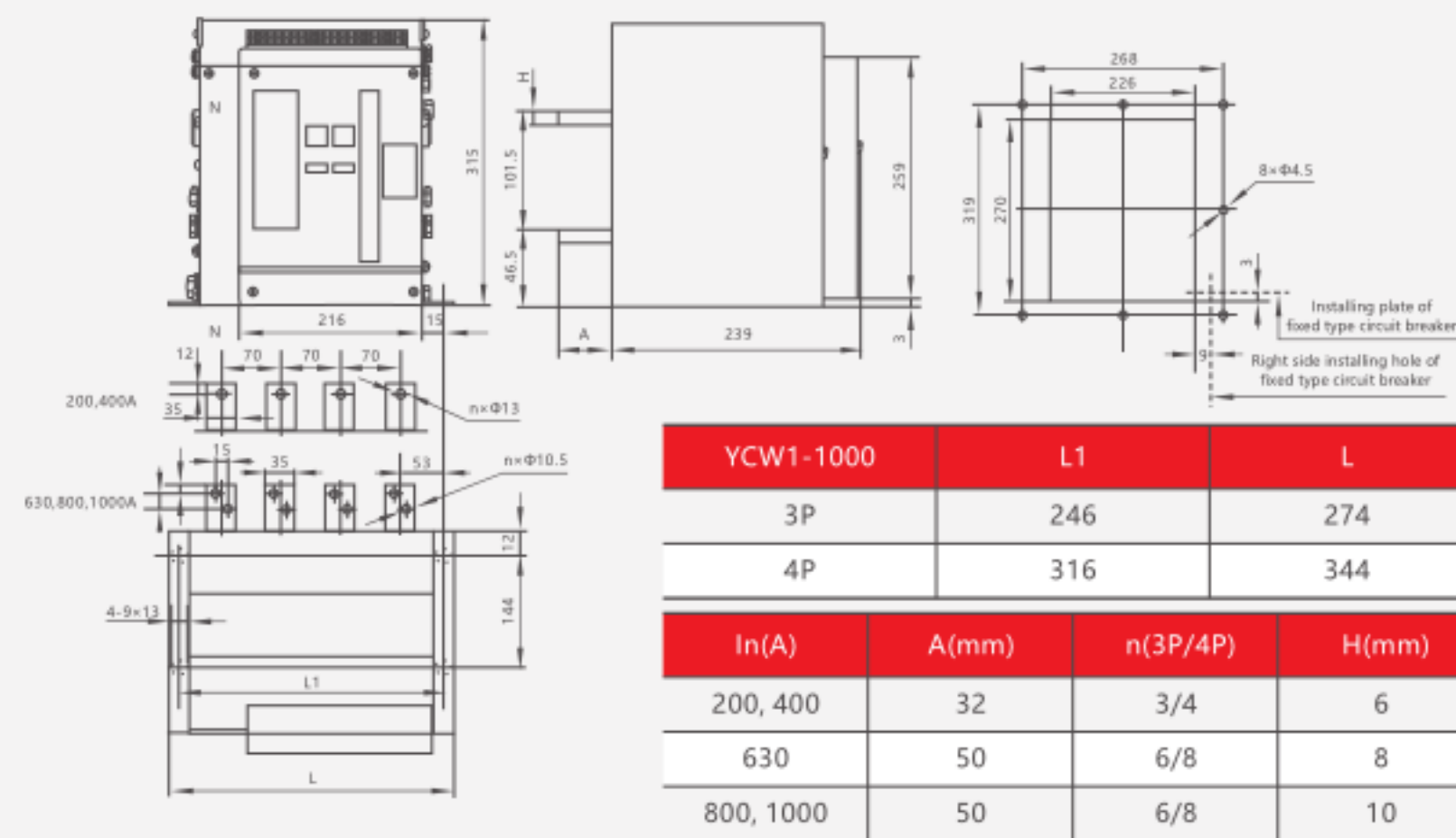
Picture 2 YCW1-1000 Intelligent Air circuit breaker Secondary circuit wiring



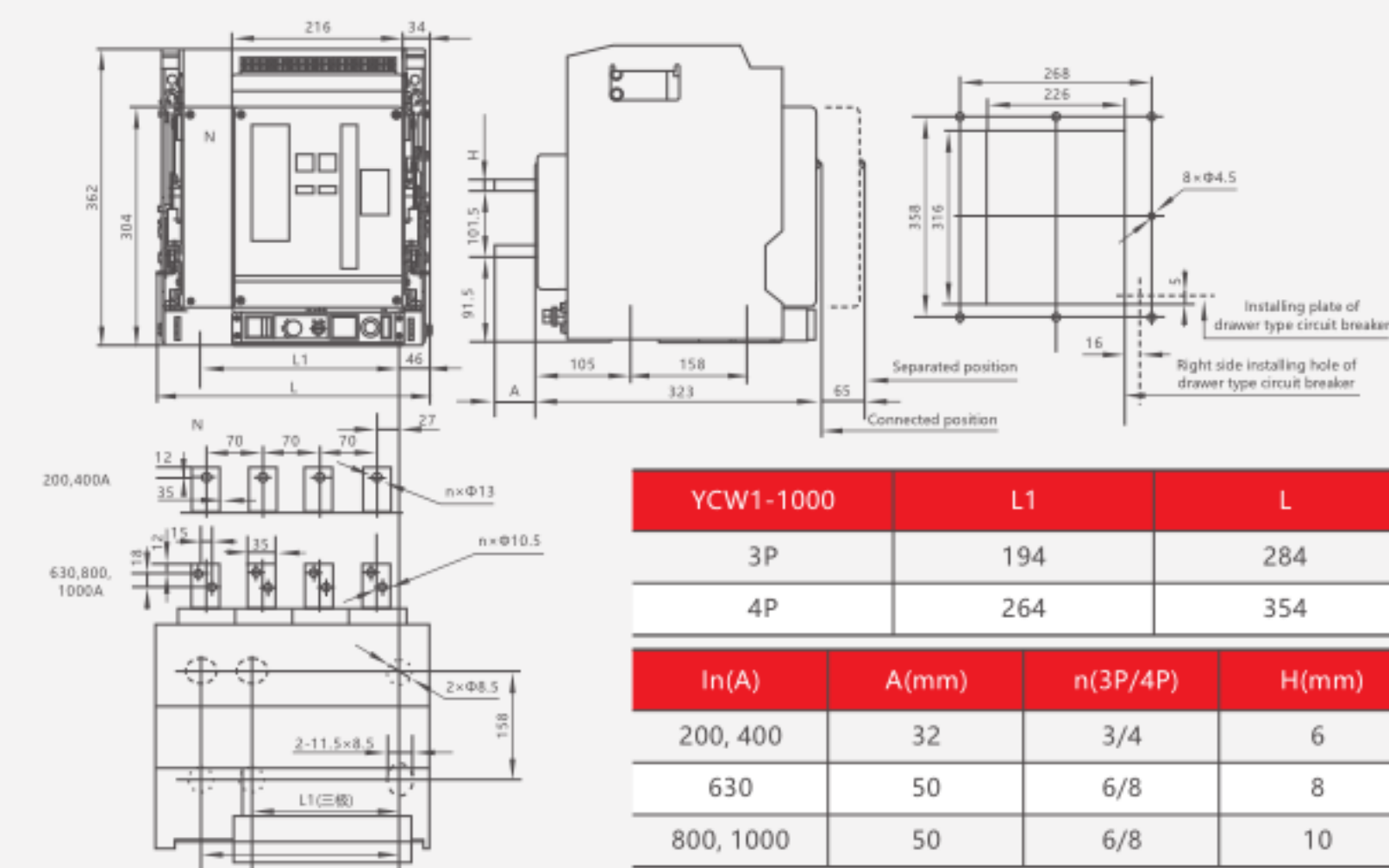
Picture 3 YCW1-1000H Intelligent air circuit breaker secondary connection diagram

Overall and Installation Dimension

YCW1-1000 Fixed type



YCW1-1000 Draw out type





## YCW3 Air Circuit Breaker



### General

YCW3 series air circuit breaker(hereinafter called ACB) is suitable for the circuit of AC 50Hz/60Hz with rated service voltage 400V, 690V and rated service current between 200A and 6300A. It is mainly used to distribute electric energy and protect circuits and electric equipment against over-load, under-voltage, short-circuit and single-phase earthing fault.

With intelligent and selective protection functions, the breaker can improve the reliability of power supply, and avoid unnecessary power failure. The breaker is applicable for power stations, factories, mines(for 690V) and modern high-buildings, especially for the distribution system of intelligitized building.

Standard: IEC/EN 60947-2.

### Type designation

YCW3 - □ / □ + installation + control unit + common use accessory + optional accessory

①
②
③
④
⑤
⑥

1. Rated current in scope of frame size  
 1600 Type In: 200A,400A,630A,800A,1000A,1250A,1600A  
 2000 Type In: 630A,800A,1000A,1250A,1600A,2000A  
 3200 Type In: 2000A,2500A,3200A  
 4000 Type In: 2500A,3200A,4000A  
 6300 Type In: 4000A,5000A,6300A
2. Number of poles  
 3-default  
 4-4 pole
3. Installation  
 Fixed type-horizontal, vertical  
 Drawout type-horizontal, vertical
4. Intelligent controller  
 M type  
 2M type: digital display, over-current protection (overload, short delay, instantaneous), 4P or 3P+N have earthing protection.  
 3M type: LCD display, over-current protection(overload, short delay, instantaneous), 4P or 3P+N have earthing protection.  
 H type  
 2H type: communication function, digital display, over-current protection (overload, short delay, instantaneous), 4P or 3P+N have earthing protection.  
 3H type: communication function, LCD display, over-current protection (overload, short delay, instantaneous), 4P or 3P+N have earthing protection.

## YCW3 Air Circuit Breaker

5. Common use accessory  
 Shunt release-AC220V/230V,AC380V/400V,DC220V,DC110V  
 Undervoltage release-AC220V/230V,AC380V/400V, it is classified to instantaneous type and time-delay type.  
 Closing electromagnet-AC220V/230V,AC380V/400V,DC220V,DC110V  
 Motor-driven energy-storage mechanism-AC220V/230V,AC380V/400V,DC220V,DC110V  
 Auxiliary contact-4a4b,2a6b,3a3b  
 Note: a-normal open, b-normal close
6. Optional accessory  
 Mechanical interlock;  
 One circuit breaker (1lock+1key)  
 Two circuit breaker(steel cable interlock, connecting rod interlock,2lock+1key)  
 Three circuit breaker(3lock+2keys, connecting rod interlock)  
 Automatic power transfer system  
 Current transformer connected with neutral lead

### Operation conditions

Item	Description
Ambient temperature	-5°C~+40°C;the average value within 24h shall not exceed +35°C; L type and M type controller can be used under -40°C~+70°C
Altitude	≤2000m
Pollution grade	3
Safety category	Main circuit and undervoltage tripping coil is IV, other auxiliary and control circuit is III
Installation position	Vertical installed, inclination between the mounting plane and the vertical plane should not exceed ±5°

### Main technical parameter

Item	Description
Number of Poles	3,4
Rated voltage Ue(V)	400/415, 660/690
Rated insulation voltage Ui(V)	1000
Rated impulse withstand voltage Uimp(kV)	12
Rated frequency(Hz)	50/60
Have function of switch disconnecter	✱

## Distribution Apparatus

### YCW3 Air Circuit Breaker

#### Frame size rated current

Rated current In(A)	1600	2000	3200	4000	6300
200	•				
400	•				
630	•	•			
800	•	•			
1000	•	•			
1250	•	•			
1600	•	•			
2000		•	•		
2500			•	•	
3200			•	•	
4000				•	•
5000					•
6300					•

#### Breaking capacity

Rated current In(A)	1600	2000	3200	4000	6300	
Rated ultimate short circuit breaking capacity Icu(kA)	400/415V	65	80	100	120	135
	660/690V	50	65	85	85	100
Rated service short circuit breaking capacity Ics(kA)	400/415V	55	65	80	100	135
	660/690V	42	65	70	85	100
Rated short time withstand current Icw.1s(kA)	400/415V	50	65	80	100	135
	660/690V	42	65	70	85	100
Rated short circuit making and breaking capacity Icm(kA)	400/415V	110	176	220	264	297
	660/690V	77	143	154	187	220
Electric life		8000	8000	8000	6000	1500
Mechanical life (Maintenance)		30000	30000	20000	20000	5000
Mechanical life (Non-maintenance)		20000	15000	12500	10000	2500
Dimension(mm) W×H×L						
Drawout type	3P	285×345×351	375×451×432	435×486×439	435×486×439	930×486×439
	4P	352×345×351	470×451×432	550×486×439	550×486×439	/
Fixed type	3P	254×251×320	362×362×395	426×378×395	426×378×395	/
	4P	324×251×320	457×362×395	537×378×395	537×378×395	/

Note: 6300A only has 3P drawout type.

## Distribution Apparatus

### YCW3 Air Circuit Breaker

#### Protection features of intelligent controller

Digital display intelligent controller

- 1 bottom fixing position
- 2 rated current
- 3 digital display window
- 4 "set" switch to setting menu
- 5 base plate
- 6 indicator



LCD display intelligent controller

- 1 bottom fixing position
- 2 rated current
- 3 LCD display window
- 4 "set" switch to setting menu
- 5 base plate
- 6 indicator





YCW3 Air Circuit Breaker

M (standard type) intelligent controller

Indicator Instruction

- 1 Current of phase A
- 2 Current of phase B
- 3 Current of phase C
- 4 Current of phase N
- 5 Load monitoring 2
- 6 Load monitoring 1
- 7 Unbalanced current protection
- 8 Earth fault protection
- 9 Self-diagnosis by the intelligent controller
- 10 Short circuit instantaneous protection
- 11 Short circuit short-time delay protection
- 12 Overload long-time delay protection
- 18 Set indicator
- 19 Check indicator
- 20 Save indicator
- 21 Test indicator
- 22 Alarm indicator
- 23 Fault indicator

Button Instruction

- 13 +/-up
- 14 Enter
- 15 -/down
- 16 Function keys
- 17 Return



3H(LCD) intelligent controller

Button Instruction

- 1 -/down
- 2 +/-up
- 3 Set
- 4 Check
- 5 Return
- 6 Enter
- 7 Test
- 8 Reset

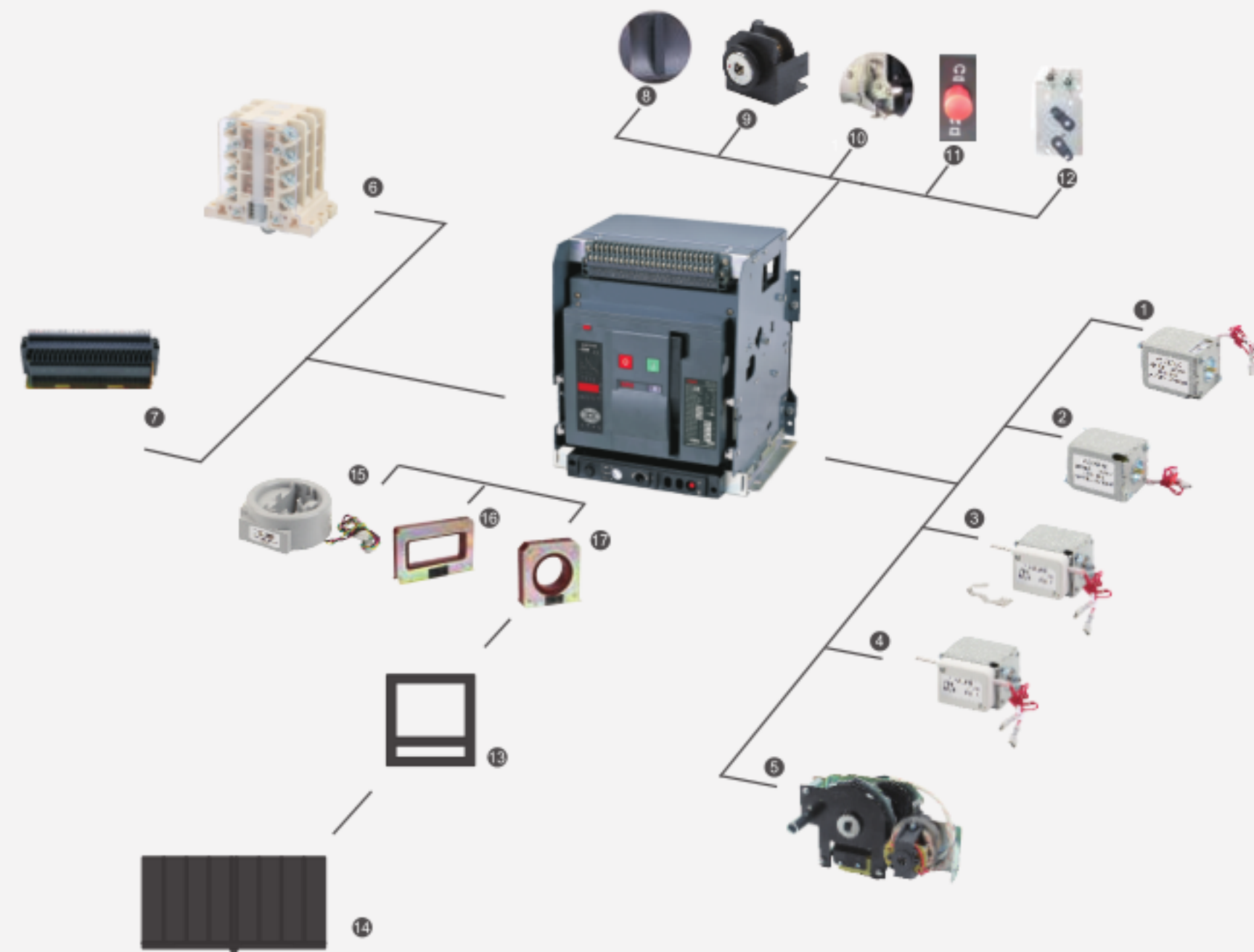
Indicator Instruction

- 9 Overload long-time delay protection
- 10 Run indicator
- 11 Communication indicator
- 12 Short circuit short-time delay protection
- 13 Earth fault protection
- 14 Alarm indicator
- 15 Over-voltage protection
- 16 Short circuit instantaneous protection



YCW3 Air Circuit Breaker

Accessories



Remote operation

- 1 shunt release
- 2 closing electromagnet
- 3 under-voltage release instantaneous type
- 4 under-voltage release time-delay type
- 5 motor-driven energy-storage mechanism

Lock and connection

- 8 padlock
- 9 key lock
- 10 door interlock
- 11 connected, disconnected, test position locking mechanism
- 12 mechanical interlock

Indication contact

- 6 auxiliary contact
- 7 secondary wiring terminal

Operation and protection

- 12 doorcase
- 13 phases barrier

Current transformer

- 15 external N-pole transformer
- 16 leakage current transformer
- 17 earthing current transformer

## Accessories of YCW3

## Shunt release

Shunt release can realize the remote control to break the circuit breaker.

- rated control power voltage  $U_s(V)$  AC220V/230V, AC380V/400V, DC220V, DC110V
- work voltage (0.7~1.1) $U_s$
- breaking time (50±10)ms

Forbid making the power for long time to avoid the shunt release being damaged.

## Closing electromagnet

After the motor finishing the energy storage, closing release can instantly close the circuit breaker.

- rated control power voltage  $U_s(V)$  AC220V/230V, AC380V/400V, DC220V, DC110V
- work voltage (0.85~1.1) $U_s$
- closing time (55±10)ms

Forbid making the power for long time to avoid the closing release being damaged.

## Under-voltage release

Without power supply, under-voltage release can't close.

It is classified into instantaneous and time-delay type.

After closing the circuit breaker, under-voltage release can break the circuit breaker when the voltage drops to (70%~35%)  $U_s$ . The circuit breaker can be closed again when power voltage recovers and exceeds 85% $U_s$ .

- rated control power voltage  $U_s(V)$  AC220V/230V, AC380V/400V
- action voltage (0.35~0.7) $U_s$
- reliable making voltage (0.85~1.1) $U_s$
- reliable non-making voltage  $\leq 0.35U_s$
- delay time: 0.5s, 1s, 1.5s, 3s (YCW3-1600, non-adjustable);  
0.5s, 1s, 3s, 5s (YCW3-2000A, 3200A, 4000A, 6300A, adjustable).

Make sure there is power supply on the under-voltage release, before making the circuit breaker.

## Motor-driven energy-storage mechanism

With the function of motor-driven storing and auto restoring energy after closing the circuit breaker, the mechanism can ensure closing the circuit breaker instantly after breaking the circuit breaker.

- rated control power voltage  $U_s(V)$  AC220V/230V, AC380V/400V, DC220V, DC110V
- work voltage (0.85~1.1) $U_s$
- power loss 75W(1600A), 85W(2000A), 110W(3200A, 4000A), 150W(6300A)
- energy-storage time <5s



## Auxiliary contact

Standard model: 4NO/4NC

For YCW3-1600: only have 4NO/4NC;

For YCW3-2000, 3200, 4000, 6300: 4NO/4NC, 4NO+4NC, 2NO+6NC, 3NO+3NC.

Ith: AC380V/AC400V 0.75A, DC220V 0.15A, AC220V/AC230V 1.3A.



## Lock

## Key lock

The OFF push-button of the breaker can be locked in the position of depress, and at this time, the breaker can not be closed for operation; when the user selects the option, the factory provides locks and keys; One breaker is provided with one lock and one key for the lock; two breakers are provided with two locks and one key for the locks; three breakers are provided with three same locks and two same keys for the locks.

Note: the air circuit breaker with key lock, when the key has to be pulled out, it is necessary to first press the OFF key, turn the key anticlockwise, and then pull out the key.



## "Disconnected" position locking device for the draw-out type

For the "disconnected" position of the draw-out circuit breaker, a lock rod can be pulled out to lock the matter, and the breaker locked will be unable to be turned towards the TEST or CONNECTION position, Padlocks have to be provided by users themselves.

## Three position locking device for the draw-out

It is locking device for three position(disconnected, test, connection) of draw-out type. Three position of circuit breaker is indicated by indicator, the driving and reversing handle is locked in the exact position, the lock can be released by the reset button.



**Operation and protection**

**Door-case**

Installed on the door of the distribution cubicle, for sealing the distribution cubicle and making the protection class to IP40(fixed type and draw-out type).



**Phases barrier (optional)**

Installed between the bus-bars to increase the creepage distance.



**Controller accessories**

**External N-pole transformer**

In 3P+N system, it is used to measure N-pole current, it is fitted on the bus-bar by user.

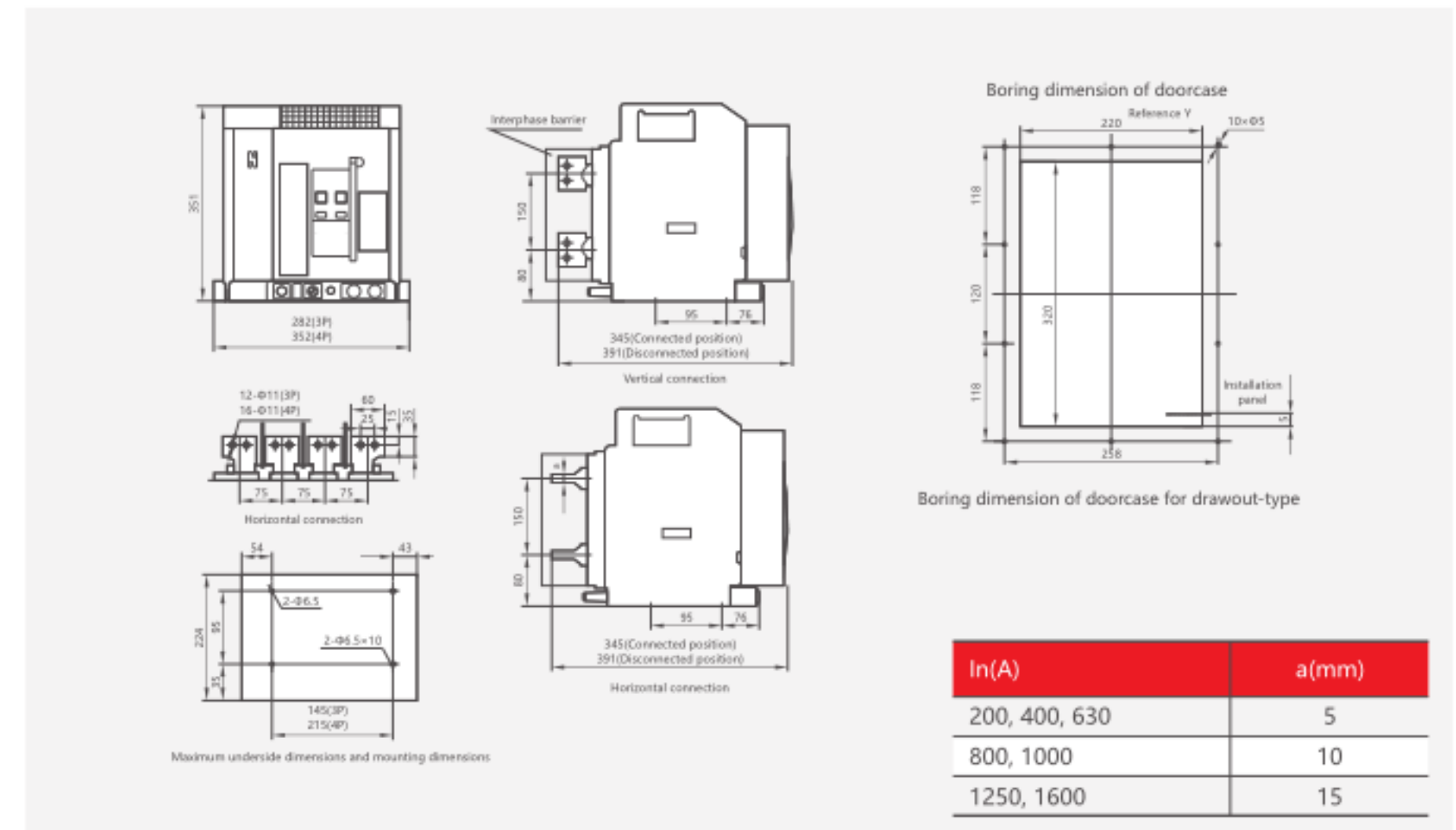


**Leakage current transformer**

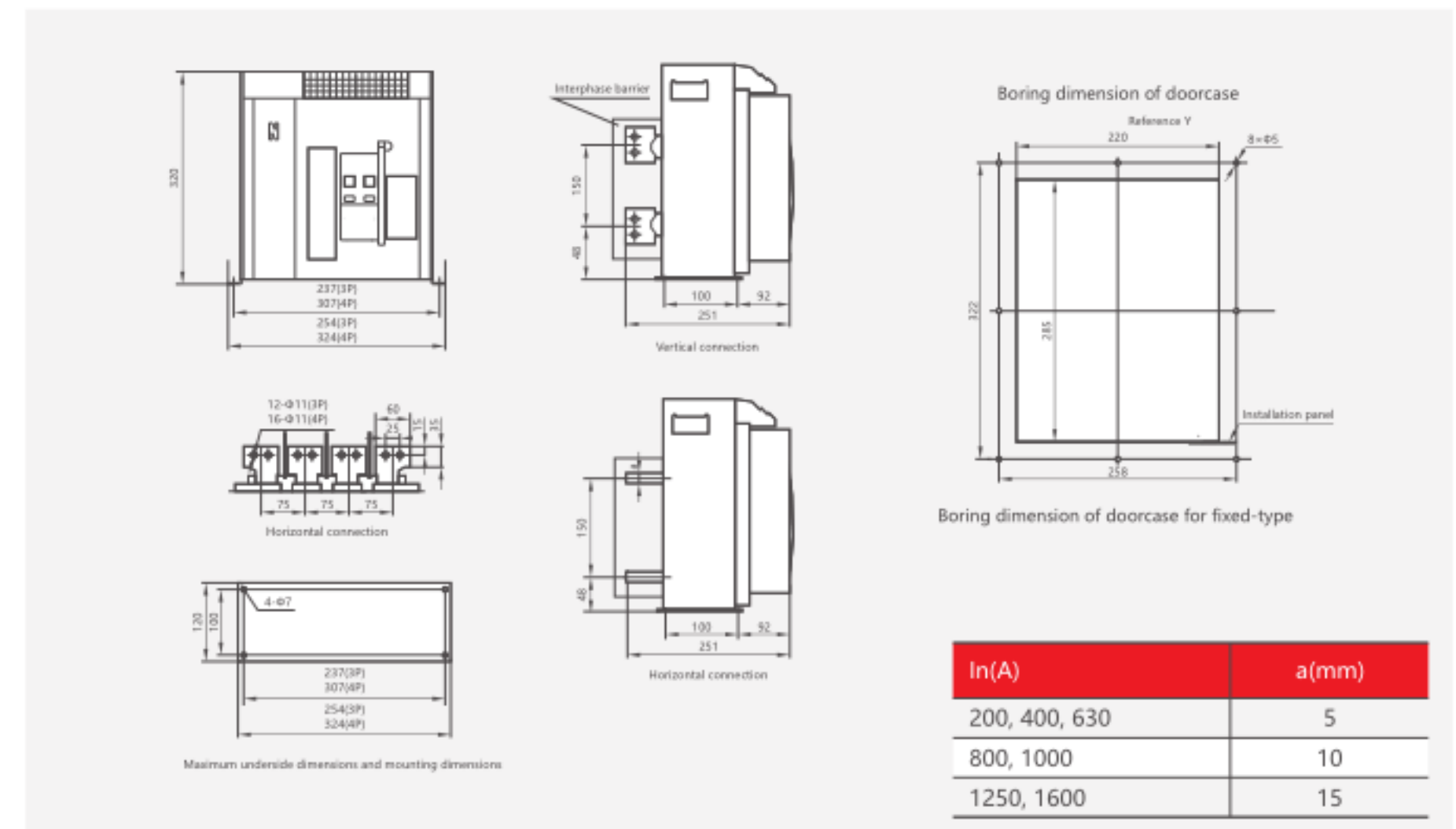
When the grounding protection is leakage type, need use plus special rectangular transformer

**Dimensions and connection**

YCW3-1600 Drawout-type (Inm=1600A 3P/4P)



YCW3-1600 Fixed-type (Inm=1600A 3P/4P)

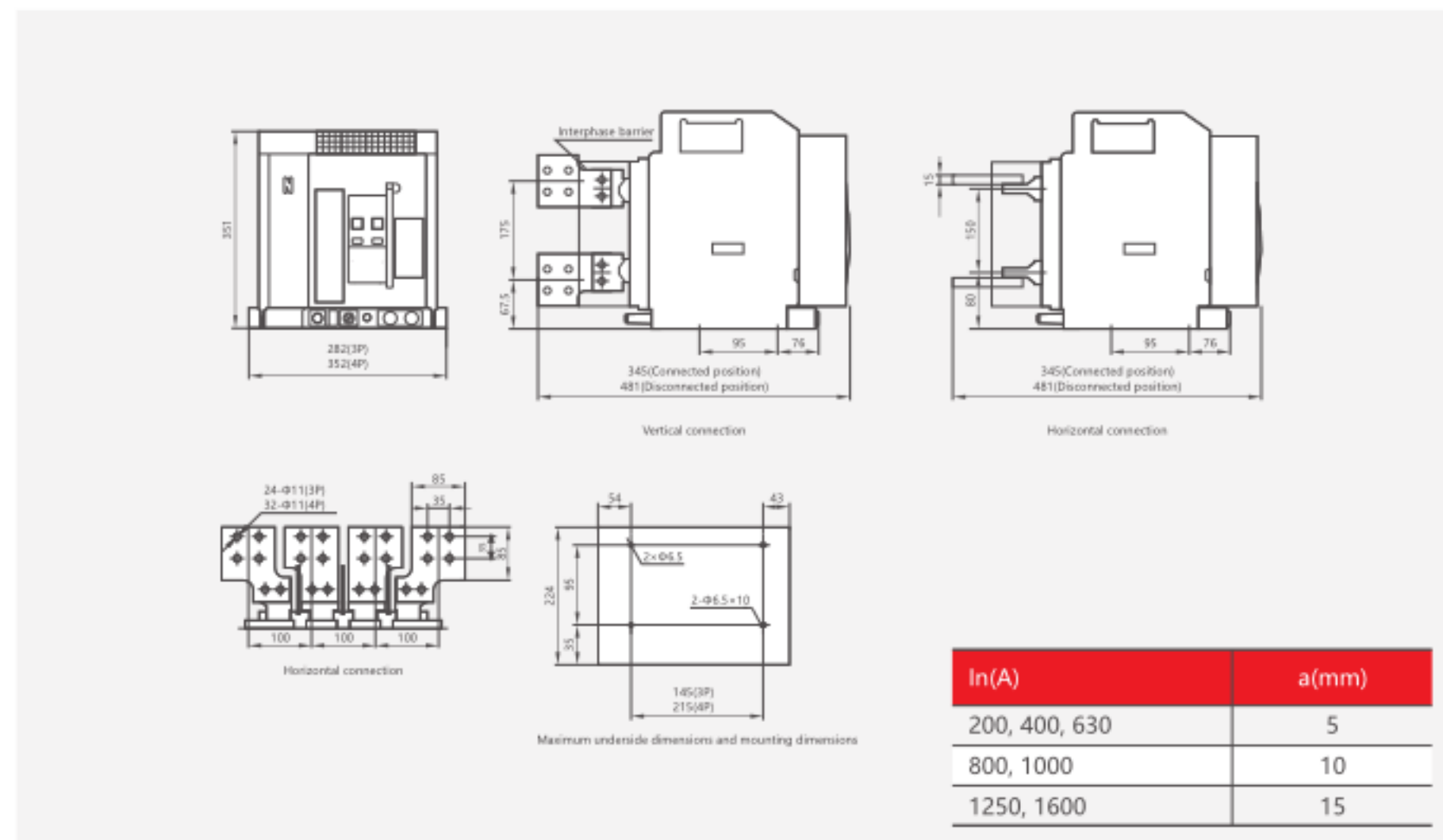


## Distribution Apparatus

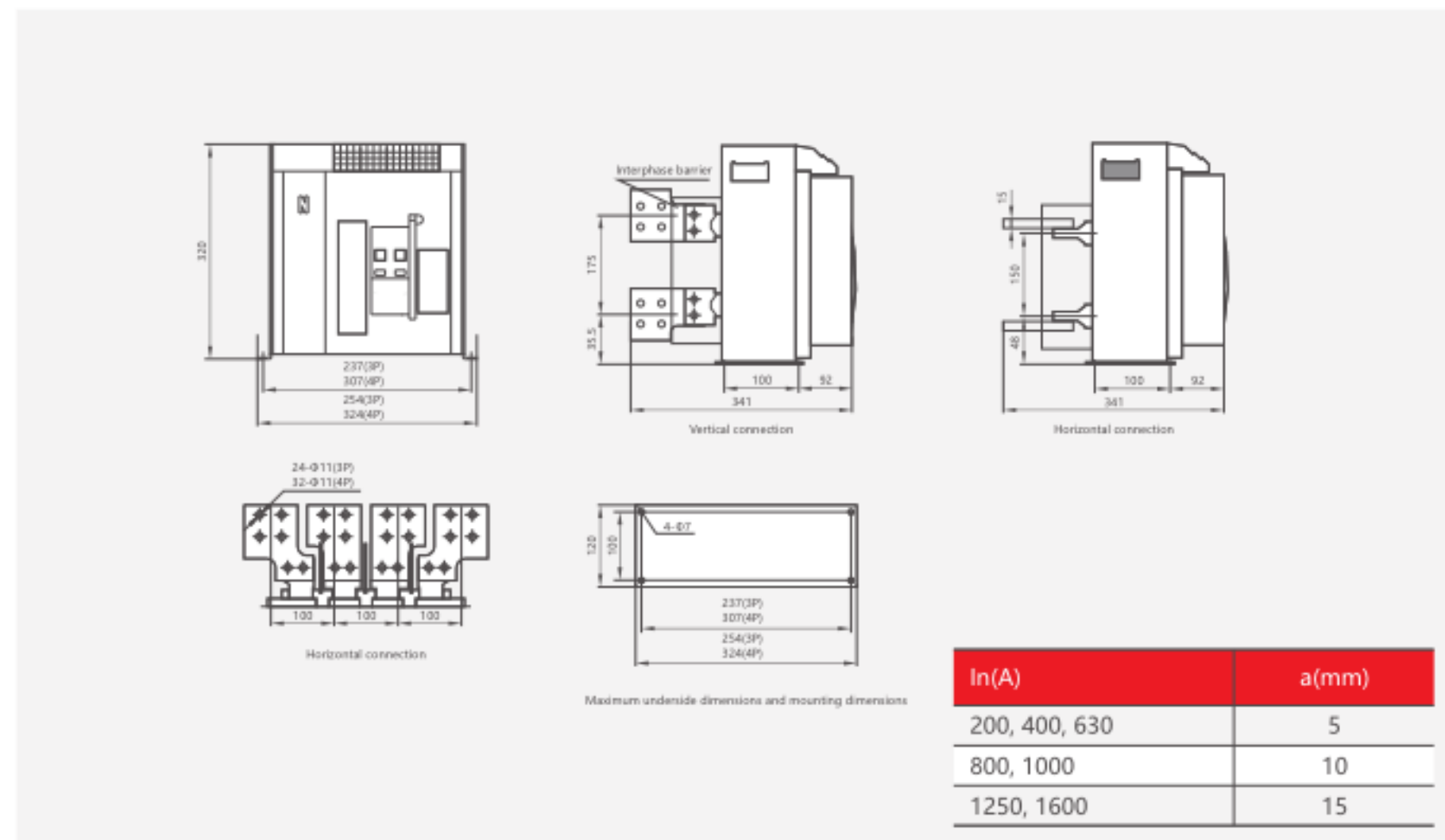
### YCW3 Air Circuit Breaker

#### Dimensions and connection

YCW3-1600 Drawout-type with extended terminal busbar ( $I_{nm}=1600A$  3P/4P)



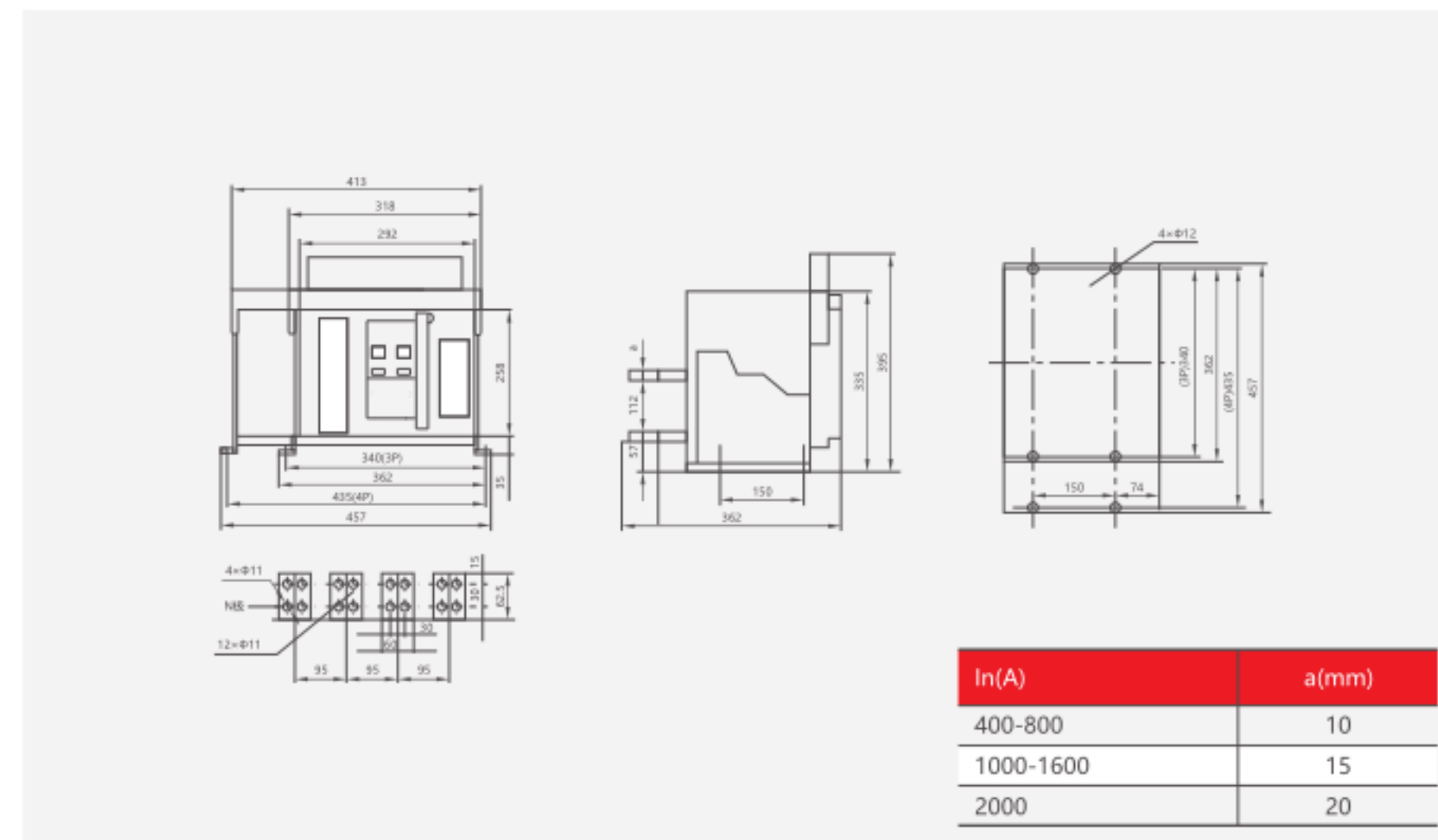
YCW3-1600 Fixed-type ( $I_{nm}=1600A$  3P/4P)



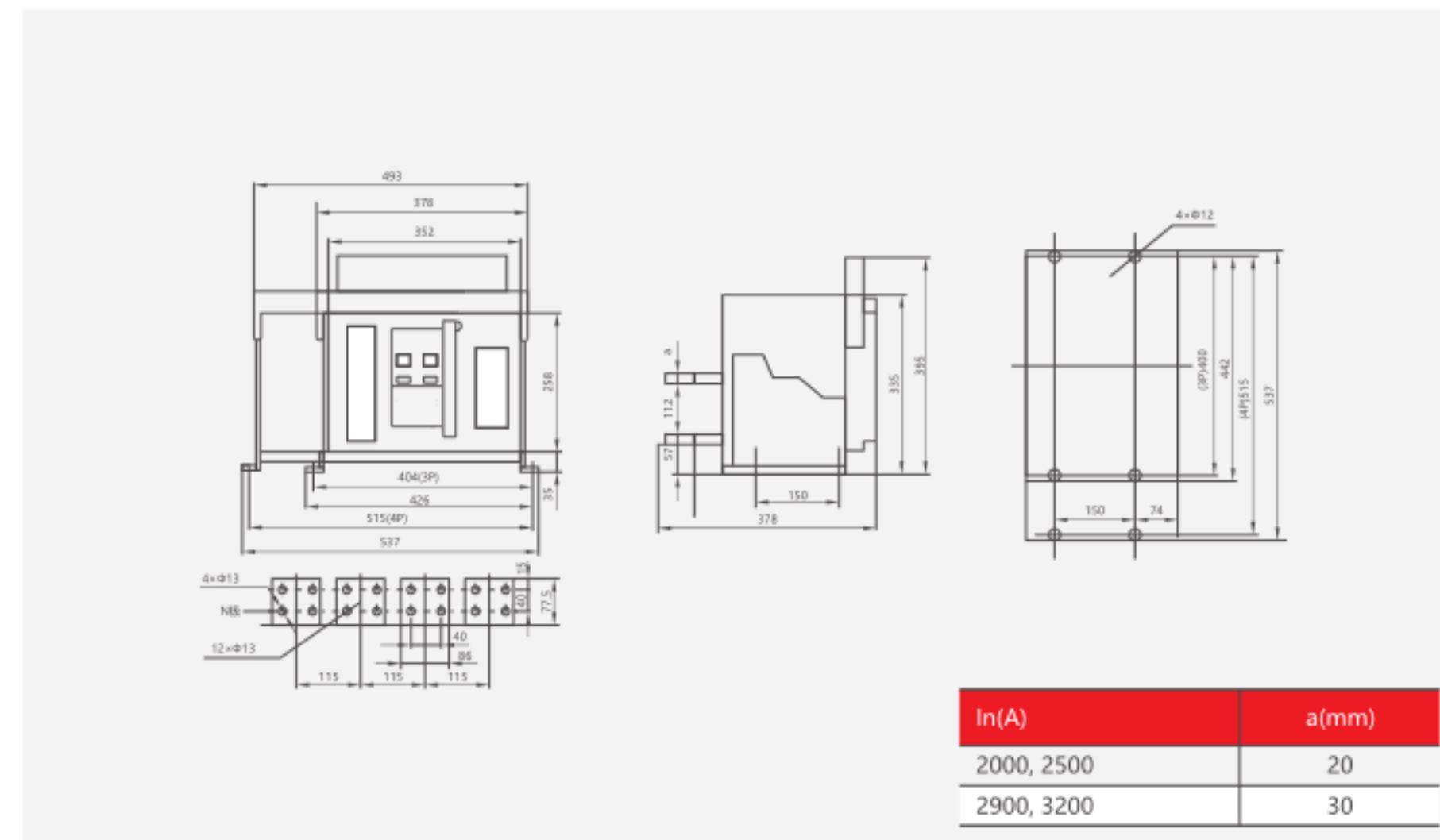
## Distribution Apparatus

### YCW3 Air Circuit Breaker

YCW3-2000 Fixed-type ( $I_{nm}=2000A$  3P/4P)



YCW3-3200 Fixed-type ( $I_{nm}=3200A$  3P/4P)

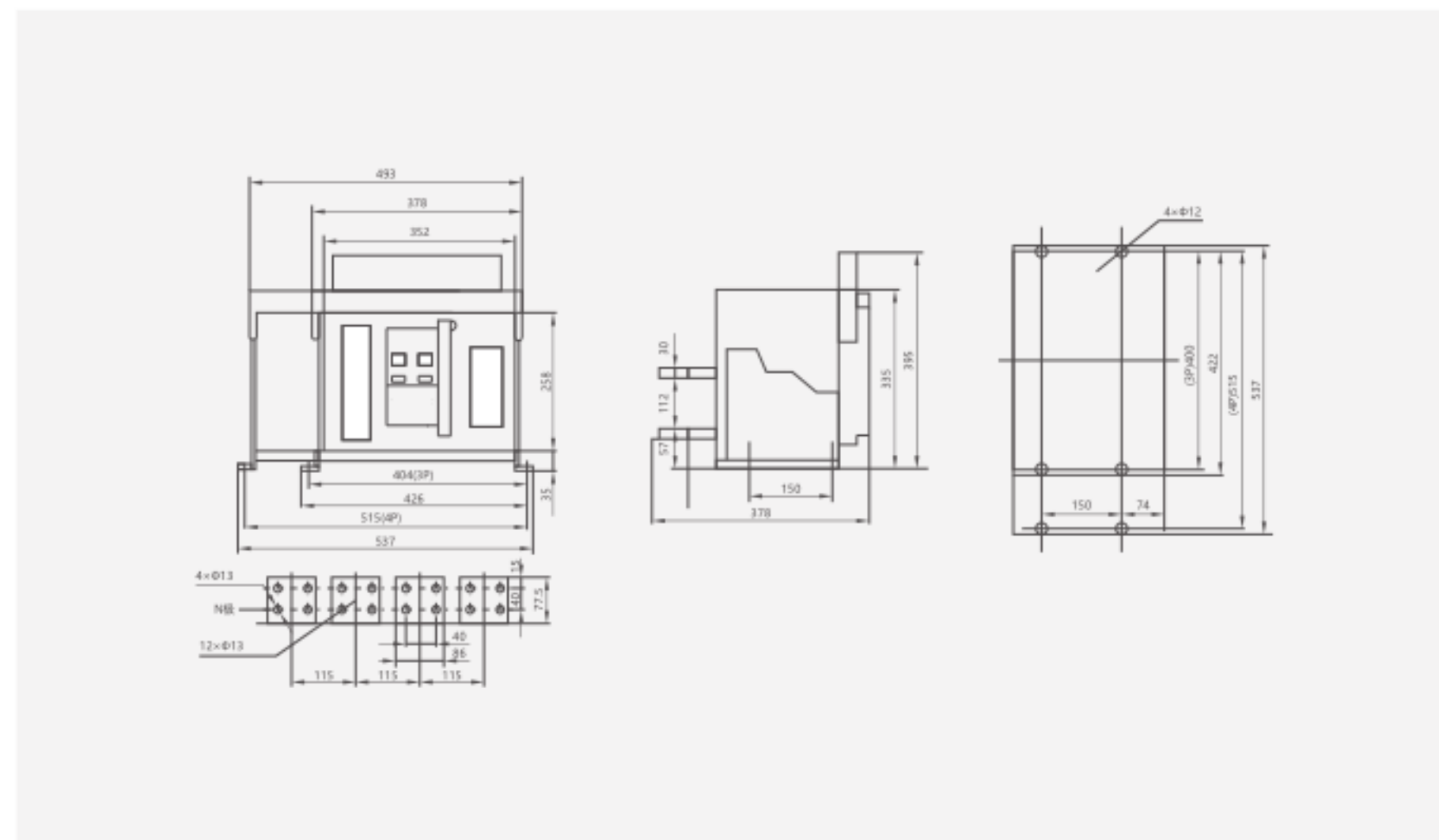




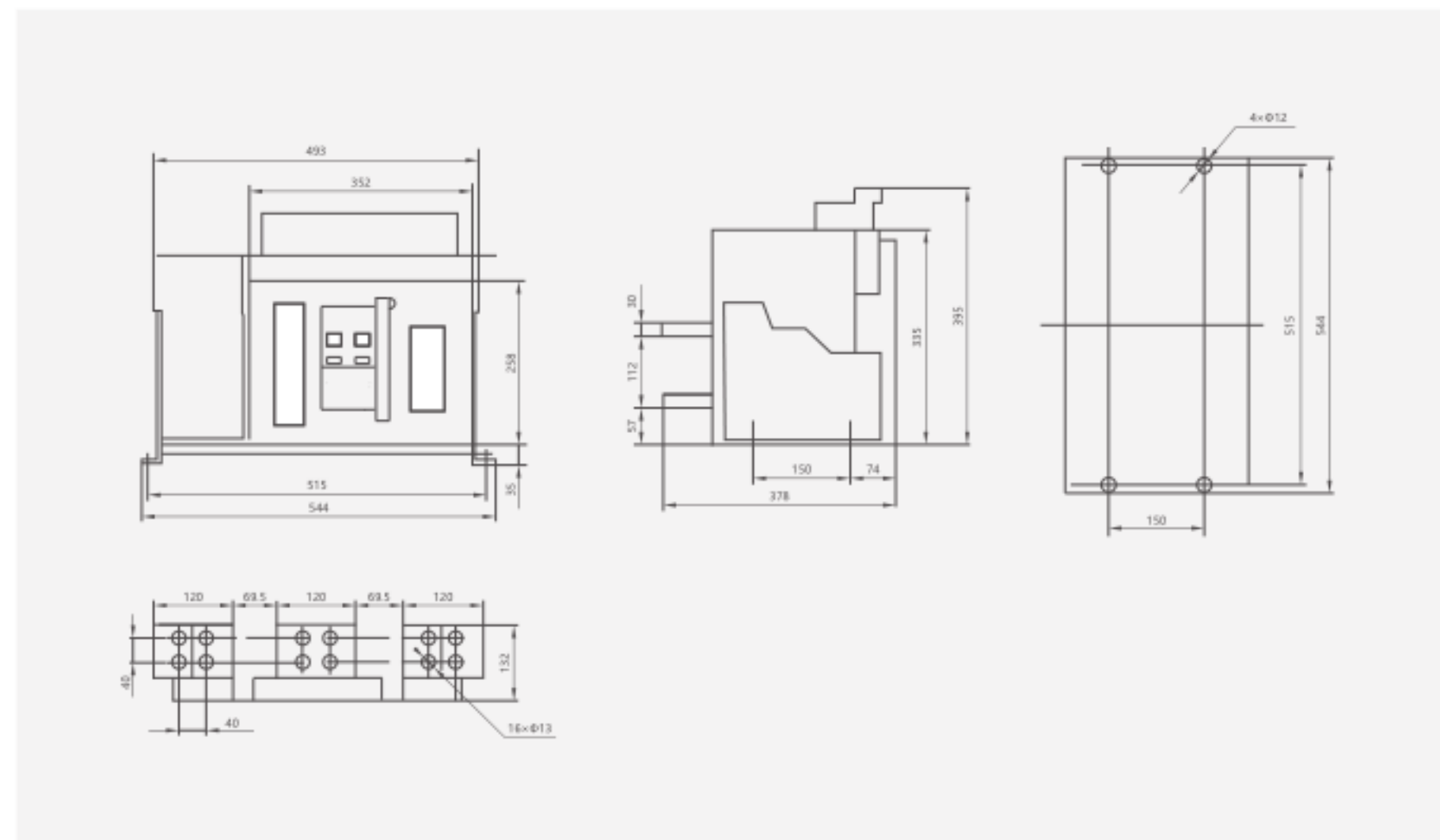
# YCW3 Air Circuit Breaker

## Dimensions and connection

YCW3-4000 Fixed-type (Inm=4000A 3P/4P)

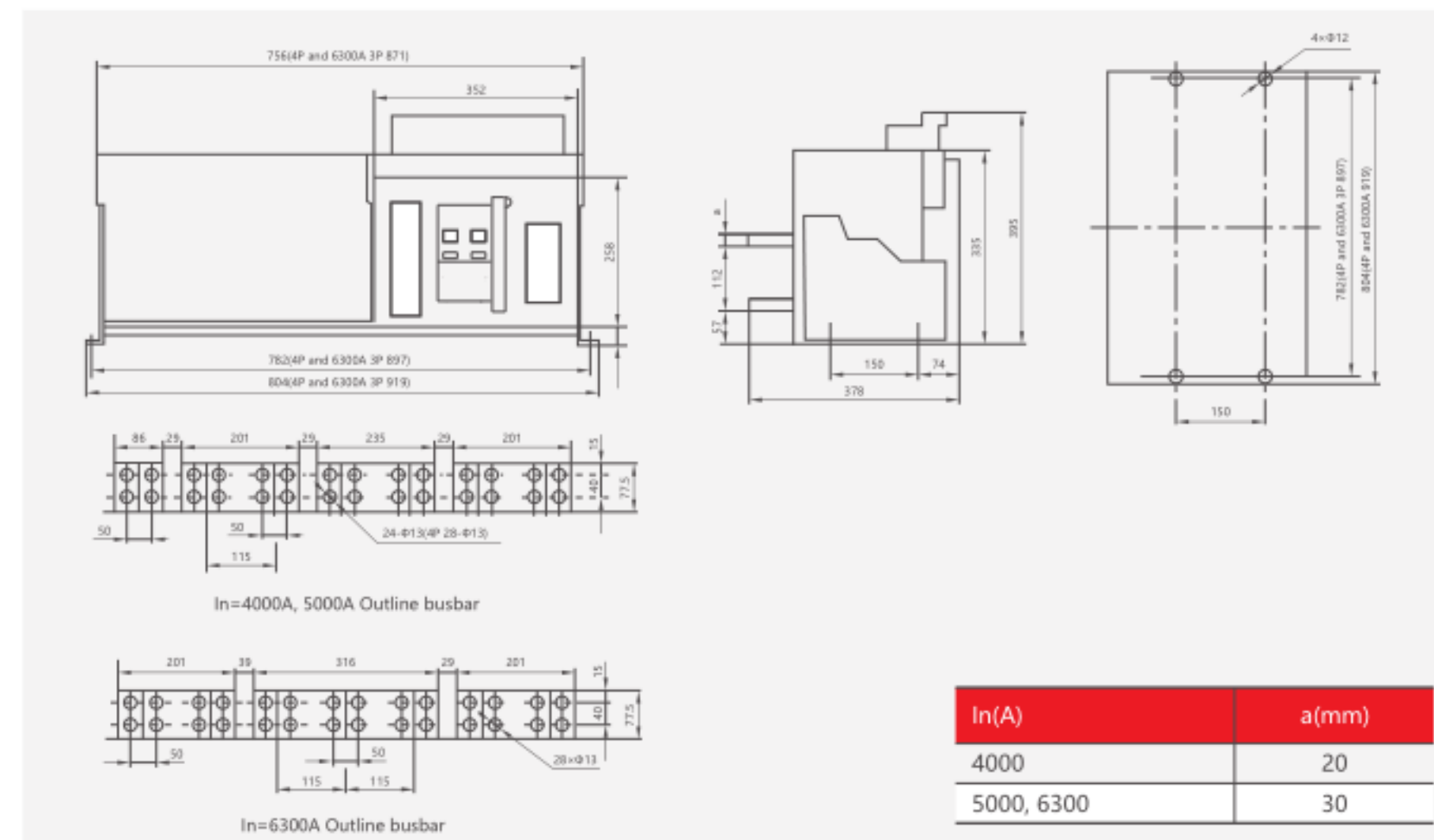


YCW3-4000 (capacity-increase type) Fixed-type (Inm=4000A 3P)

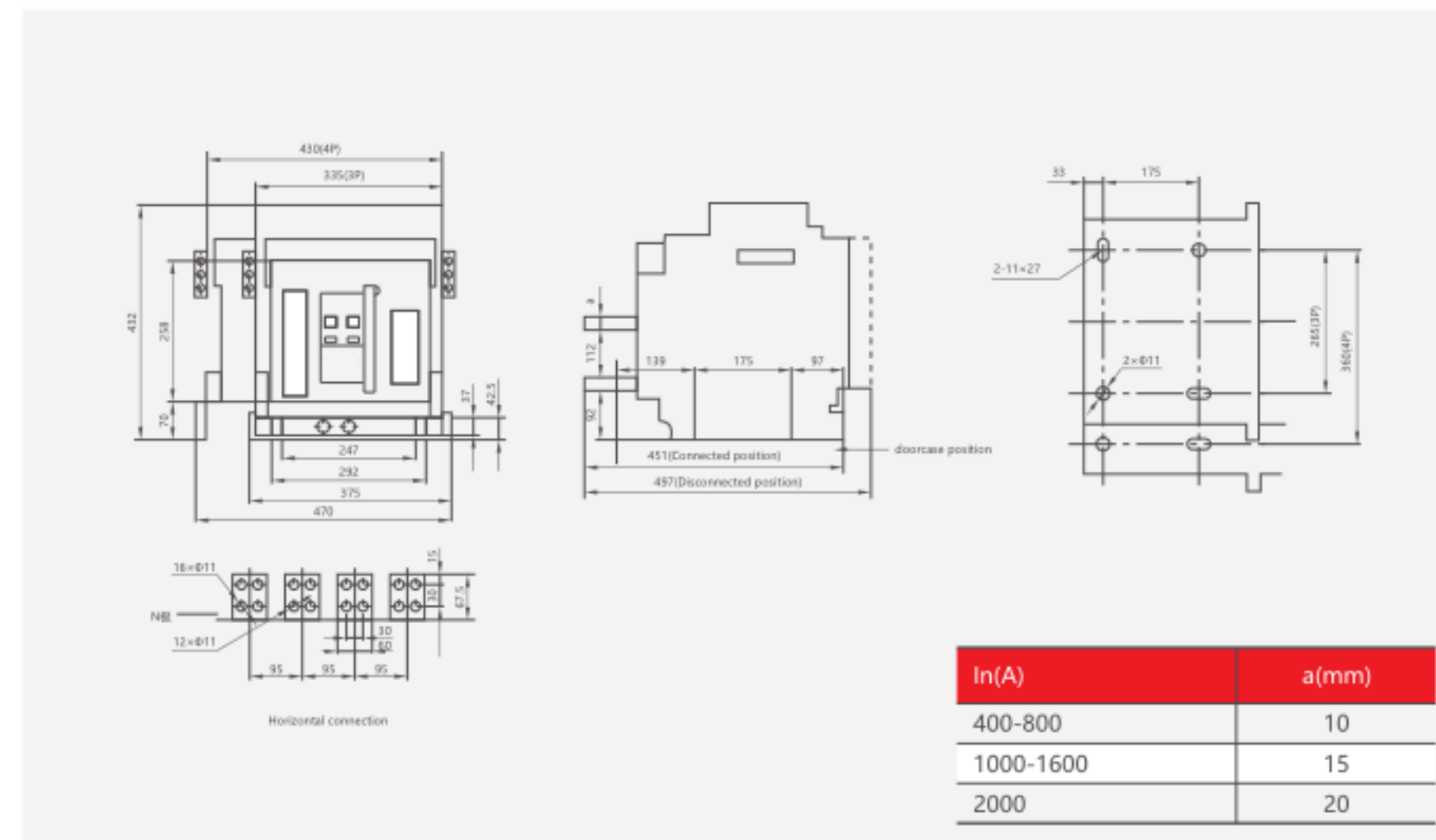


# YCW3 Air Circuit Breaker

YCW3-6300 Fixed-type (Inm=6300A)(4000A 3P/4P, 5000A 3P/4P, 6300A 3P)



YCW3-2000 Drawout-type (Inm=2000A 3P/4P)

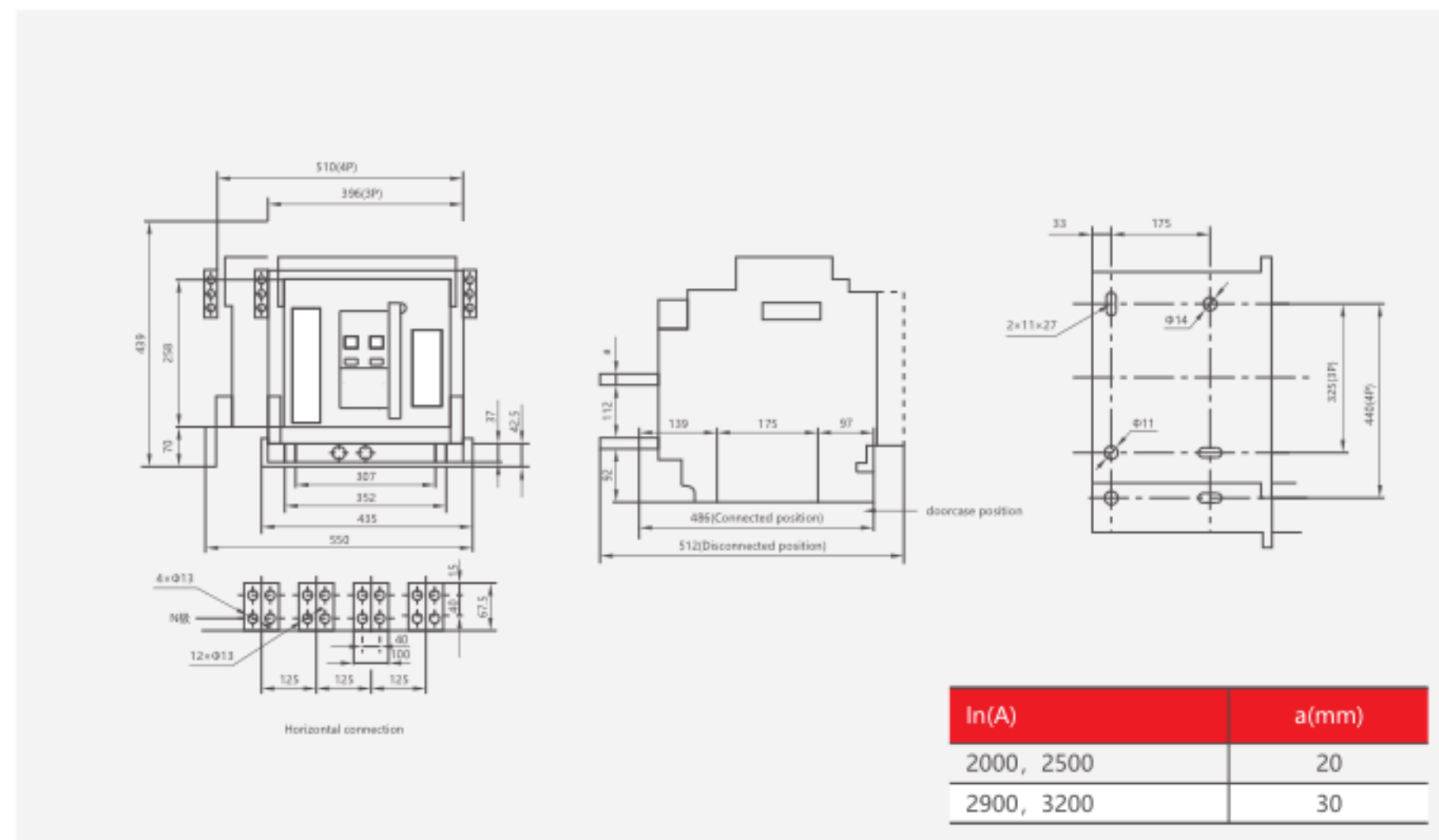


## Distribution Apparatus

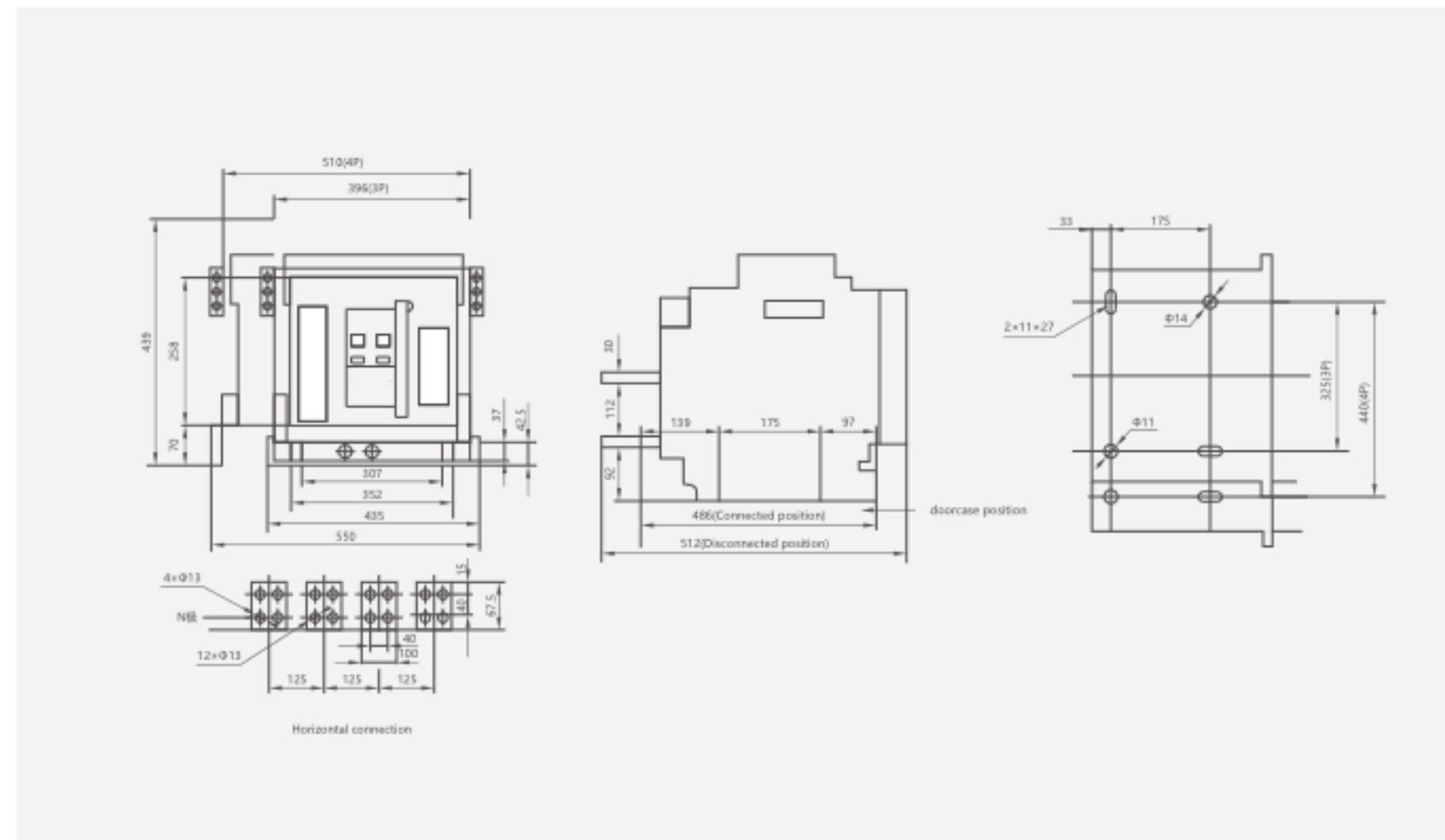
### YCW3 Air Circuit Breaker

#### Dimensions and connection

YCW3-3200 Drawout-type (Inm=3200A 3P/4P)



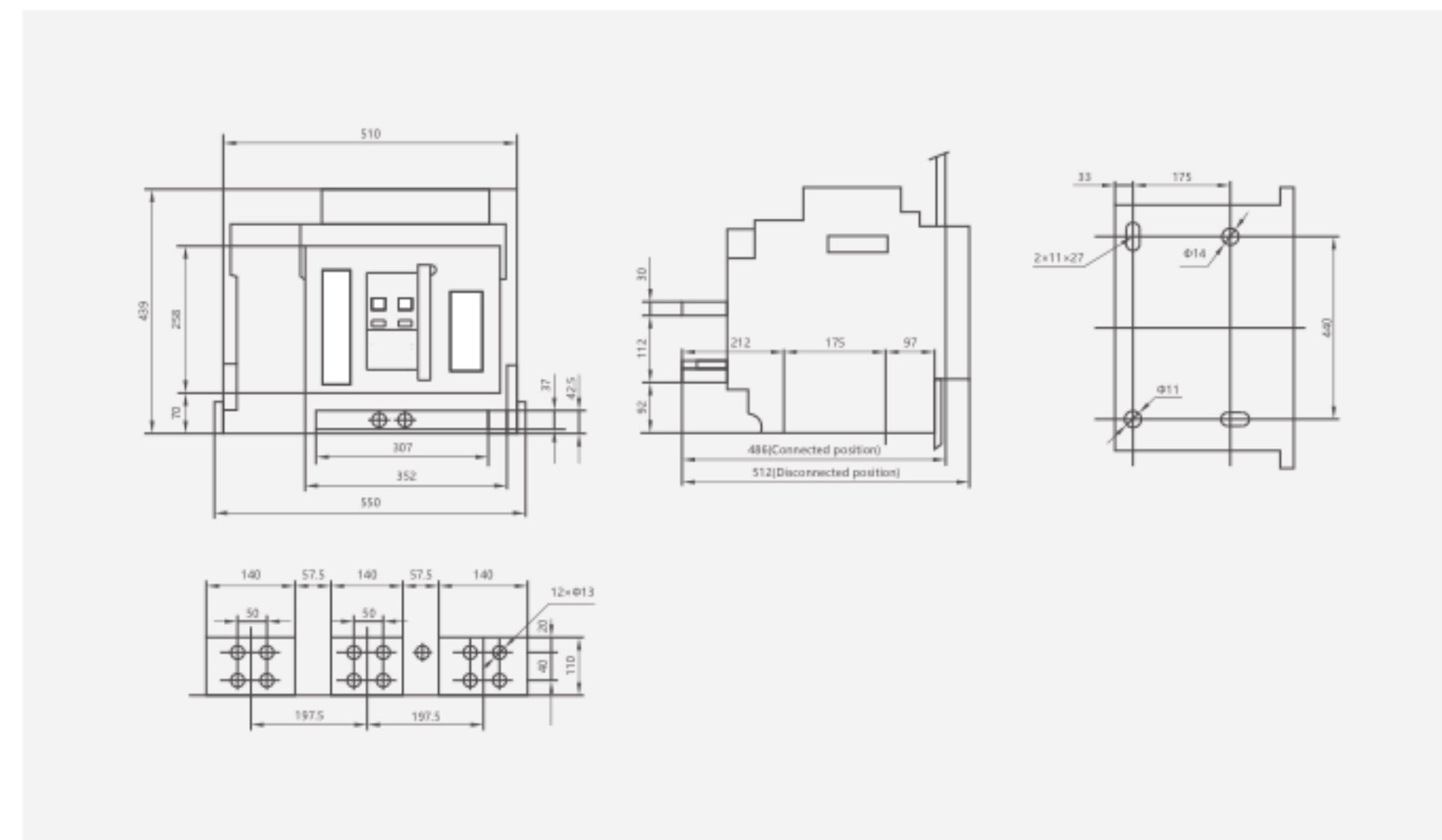
YCW3-4000 Drawout-type (Inm=4000A 3P/4P)



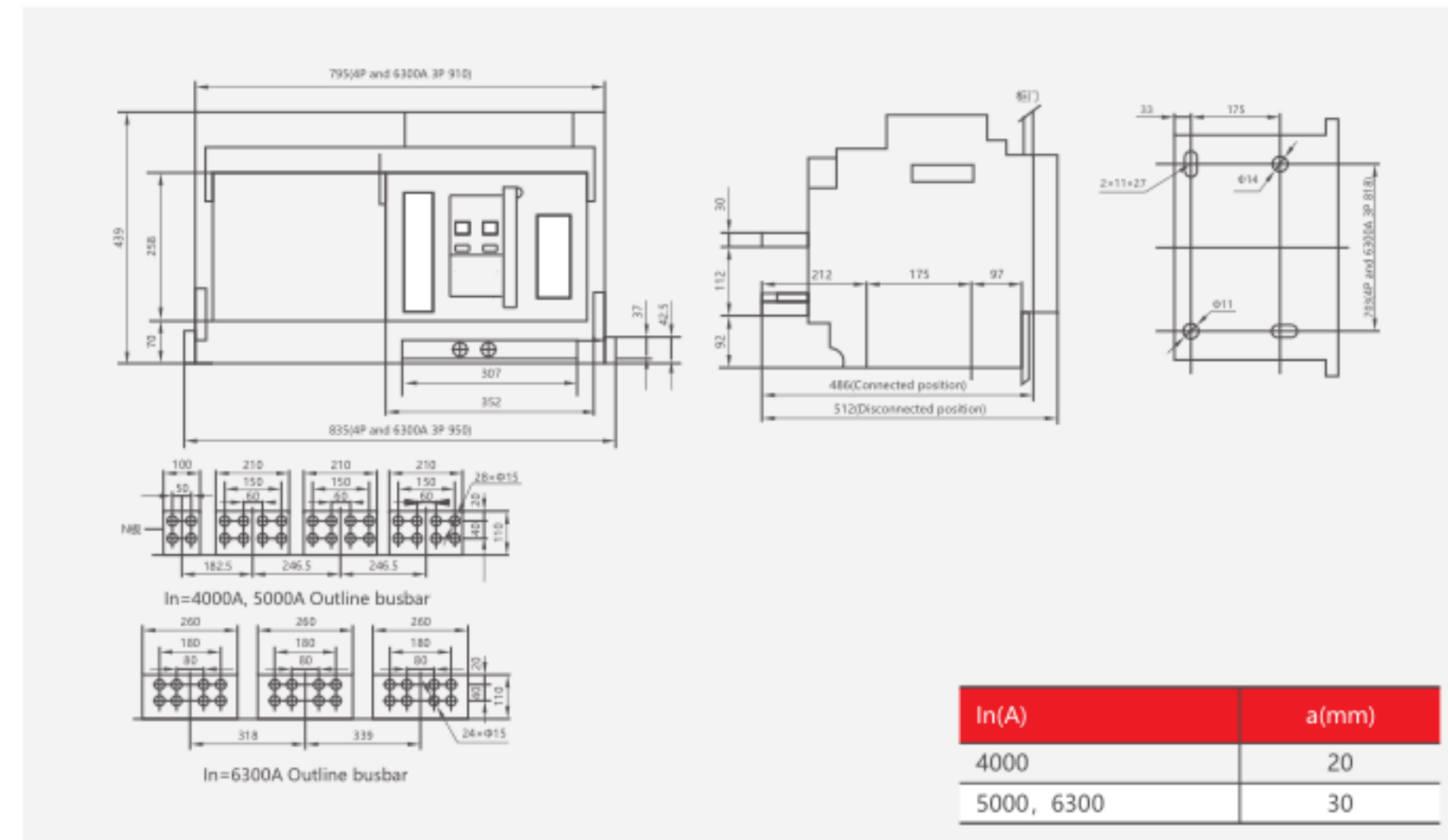
## Distribution Apparatus

### YCW3 Air Circuit Breaker

YCW3-4000 (capacity-increase type) Drawout-type (Inm=4000A 3P)



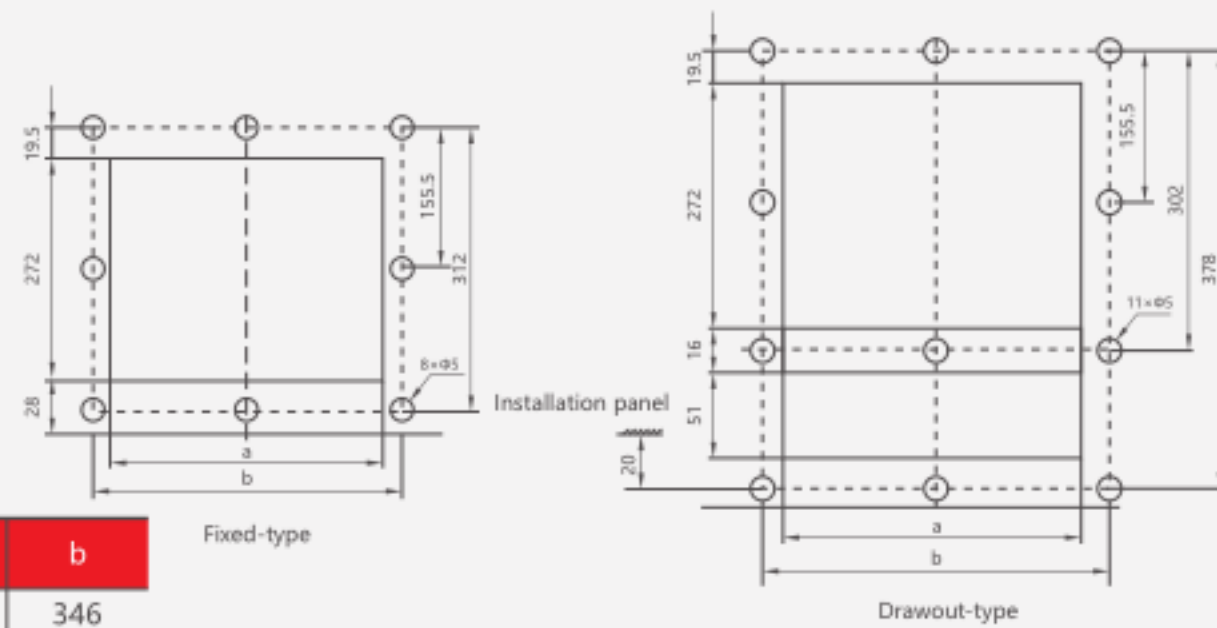
YCW3-6300 Drawout-type (Inm=6300A)(4000A 3P/4P, 5000A 3P/4P, 6300A 3P)





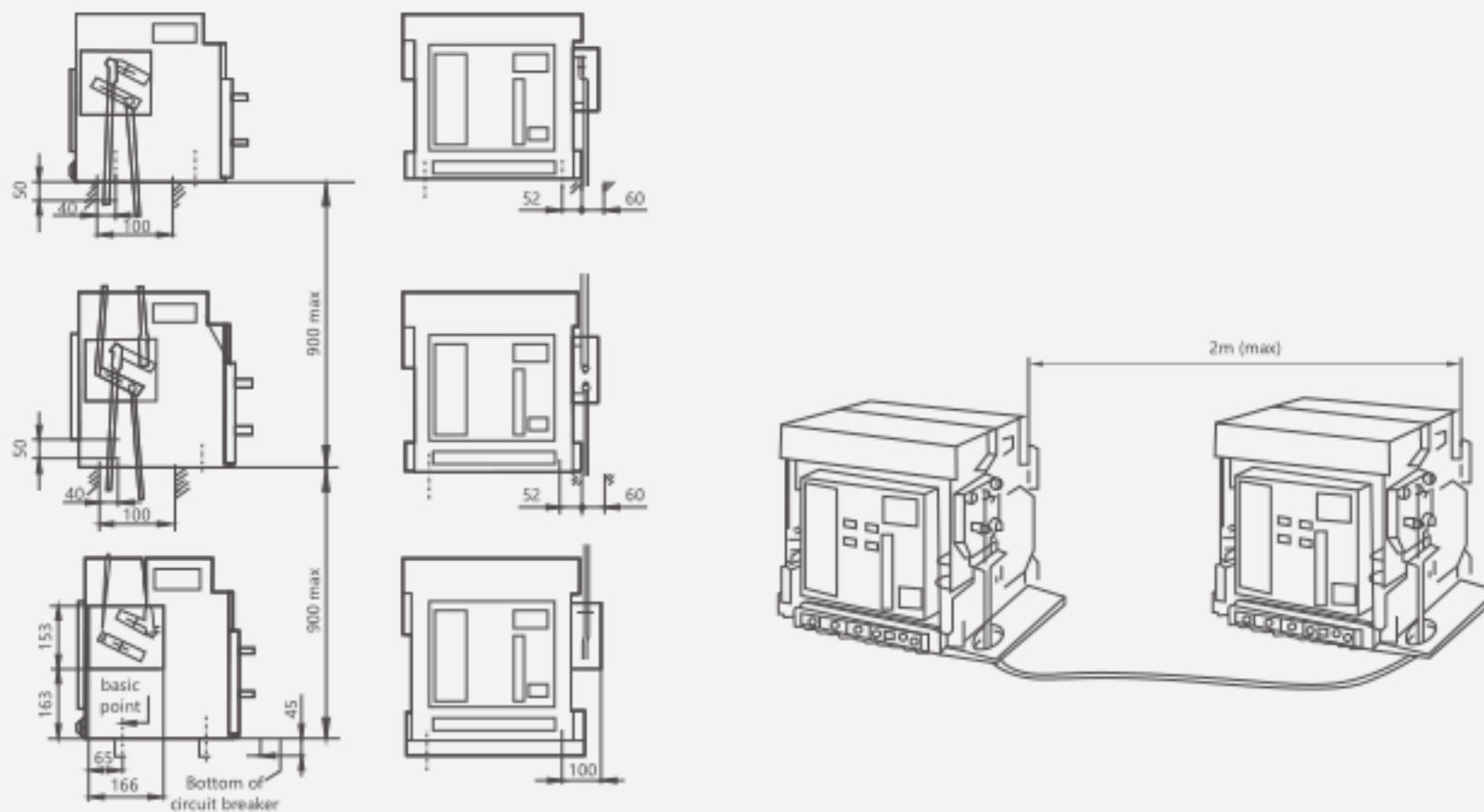
# YCW3 Air Circuit Breaker

Boring dimension of doorcase



Type	a	b
YCW3-2000	306	346
YCW3-3200~6300	366	406

Mechanical interlock



Vertical-installed mechanical interlock

Horizontal-installed mechanical interlock

Note: 3 pcs of circuit breaker vertical-installed with connecting-rod type mechanical interlock. If need 2 pcs of circuit breaker interlocked, just remove the top one.

Note: 2 pcs of circuit breaker horizontal-installed with steel cable mechanical interlock(fixed type or drawout type circuit breaker).

# YCW3 Air Circuit Breaker

Ordering instructions

Quantity		Set	
Model	Available type and rated current	Rated voltage	<input type="checkbox"/> AC400V <input type="checkbox"/> AC690V
YCW3-1600	<input type="checkbox"/> 200 <input type="checkbox"/> 400 <input type="checkbox"/> 630 <input type="checkbox"/> 800 <input type="checkbox"/> 1000 <input type="checkbox"/> 1250 <input type="checkbox"/> 1600	Quantity Set	<input type="checkbox"/> Fixed <input type="checkbox"/> Draw-out <input type="checkbox"/> Three poles <input type="checkbox"/> Four poles
YCW3-2000	<input type="checkbox"/> 630 <input type="checkbox"/> 800 <input type="checkbox"/> 1000 <input type="checkbox"/> 1250 <input type="checkbox"/> 1600 <input type="checkbox"/> 2000	Quantity Set	<input type="checkbox"/> Fixed <input type="checkbox"/> Draw-out <input type="checkbox"/> Three poles <input type="checkbox"/> Four poles
YCW3-3200	<input type="checkbox"/> 2500 <input type="checkbox"/> 2900 <input type="checkbox"/> 3200	Quantity Set	<input type="checkbox"/> Fixed <input type="checkbox"/> Draw-out <input type="checkbox"/> Three poles <input type="checkbox"/> Four poles
YCW3-4000	<input type="checkbox"/> 3200 <input type="checkbox"/> 3600 <input type="checkbox"/> 4000	Quantity Set	<input type="checkbox"/> Fixed <input type="checkbox"/> Draw-out <input type="checkbox"/> Three poles <input type="checkbox"/> Four poles
YCW3-6300	<input type="checkbox"/> 4000 <input type="checkbox"/> 5000 <input type="checkbox"/> 6300	Quantity Set	<input type="checkbox"/> Fixed <input type="checkbox"/> Draw-out <input type="checkbox"/> Three poles <input type="checkbox"/> Four poles
Intelligent controller	Basic function	<input type="checkbox"/> Overload long time delay protection <input type="checkbox"/> Short-circuit short delay <input type="checkbox"/> Short-circuit instantaneous	
	Other function	<input type="checkbox"/> Earthing protection <input type="checkbox"/> Load monitoring <input type="checkbox"/> Ampere meter <input type="checkbox"/> MCR function <input type="checkbox"/> Thermo-simulating <input type="checkbox"/> voltage meter <input type="checkbox"/> Self-diagnosis <input type="checkbox"/> Testing <input type="checkbox"/> Fault records <input type="checkbox"/> Communication	
	Controller power	<input type="checkbox"/> AC 220V <input type="checkbox"/> AC 380V <input type="checkbox"/> DC 220V <input type="checkbox"/> DC 110V	
Accessory	<input type="checkbox"/> Under-voltage release	<input type="checkbox"/> AC 220V <input type="checkbox"/> AC 380V <input type="checkbox"/> Under-voltage instantaneous type <input type="checkbox"/> Under-voltage time-delay type <input type="checkbox"/> 1s <input type="checkbox"/> 3s <input type="checkbox"/> 5s <input type="checkbox"/> 10s	
	<input type="checkbox"/> Shunt release	<input type="checkbox"/> AC 220V <input type="checkbox"/> AC 380V <input type="checkbox"/> DC 220V <input type="checkbox"/> DC 110V	
	<input type="checkbox"/> Closing electromagnet	<input type="checkbox"/> AC 220V <input type="checkbox"/> AC 380V <input type="checkbox"/> DC 220V <input type="checkbox"/> DC 110V	
	<input type="checkbox"/> Motor-driven energy-storage mechanism	<input type="checkbox"/> AC 220V <input type="checkbox"/> AC 380V <input type="checkbox"/> DC 220V <input type="checkbox"/> DC 110V	
	<input type="checkbox"/> Auxiliary contact	<input type="checkbox"/> 4 groups of changeover contacts <input type="checkbox"/> 2NO and 6NC contacts <input type="checkbox"/> 4NO and 4NC contacts <input type="checkbox"/> 6NC and 4NO contacts <input type="checkbox"/> 3NO and 3NC contacts (YCW3-1600 noly have 4 groups of changeover contacts)	
	<input type="checkbox"/> Locking device	<input type="checkbox"/> Horizontal interlock <input type="checkbox"/> Vertical interlock <input type="checkbox"/> Door interlock <input type="checkbox"/> Others	

Note:

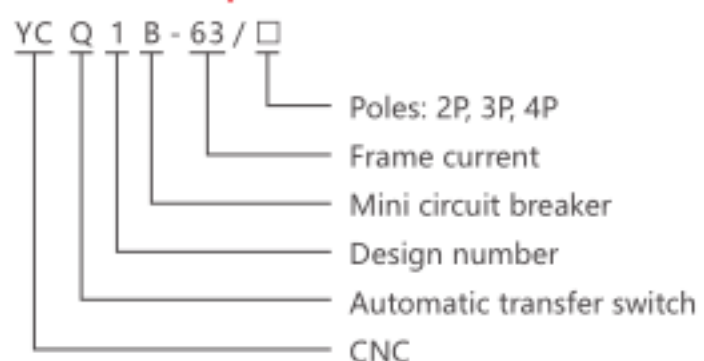
- The frame size current, rated current and auxiliary control voltage must be specified when ordering.
- Please mark "√" or fill in figure in the relative "□", if no mark, we will provide according to conventional.
- The operational function of the intelligent controller and special requirement require additional costs.

# YCQ1B Automatic Transfer Switch

## Product Overview

The dual power automatic switch is used to switch between two power sources. It is divided into common power supply and standby power supply. When the common power supply is powered off, the standby power supply is used. When the common power supply is called, the common power supply is restored), if you do not need automatic switching in special circumstances, you can also set it to manual switching (this type of manual / automatic dual-use, arbitrary adjustment).

## Model & Explanation

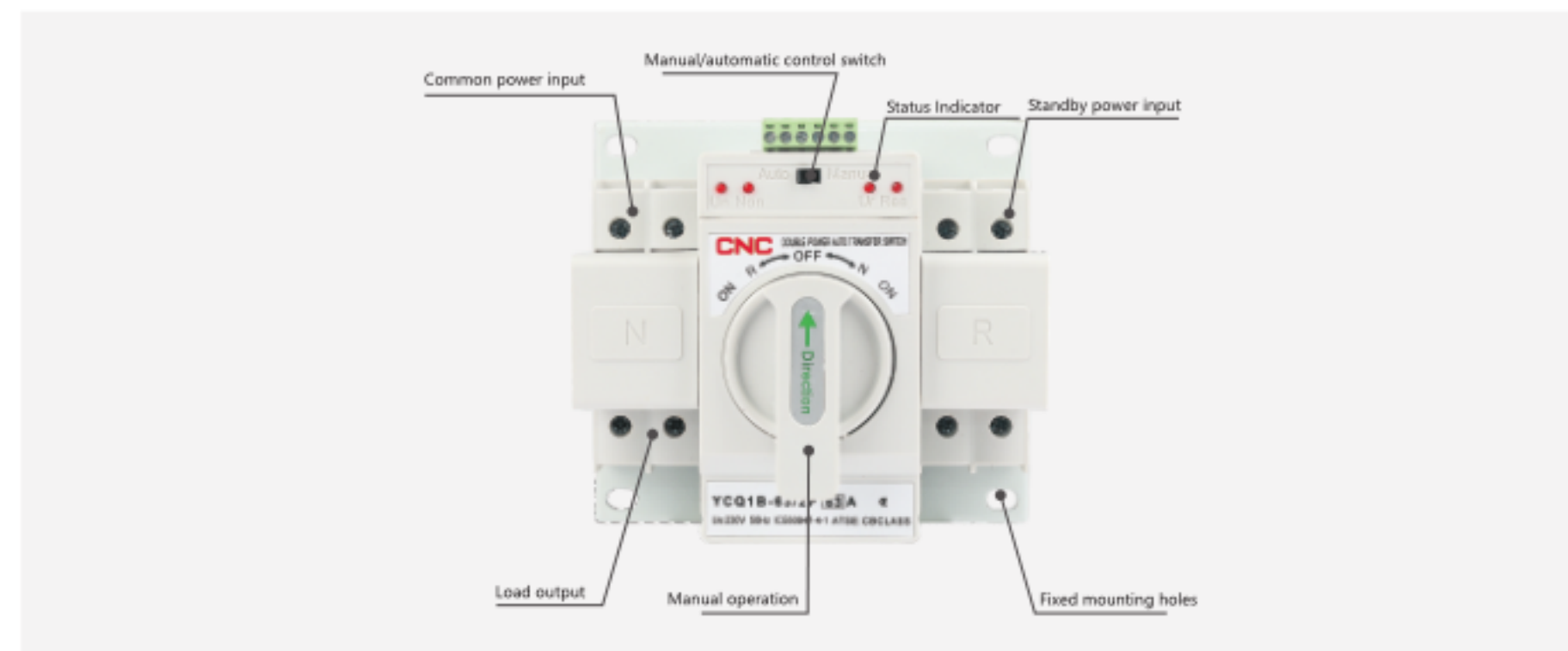


## Product Parameters

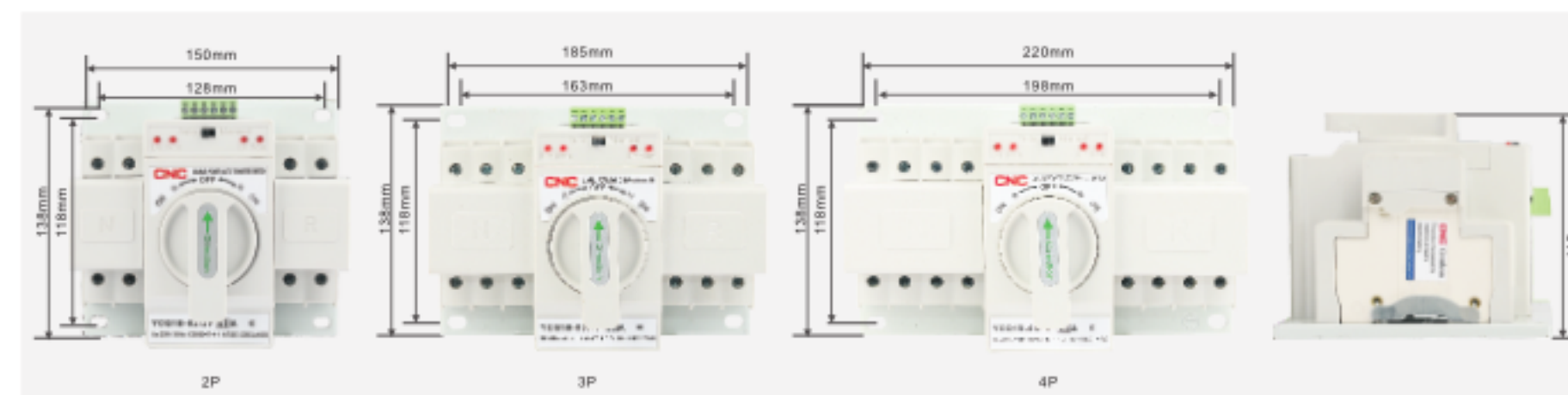
Type	YCQ1B-63
Working frequency	50Hz/60Hz
Rated voltage	AC400V
Operating Voltage	AC220V
Standards compliant	IEC60947-6-1
Product Size	185mm×138mm×115mm
Operation method	Automatic and manual
ATS level	CB
Conversion time	≤2s
Current specifications	10A-63A
Conversion method	Self-return

# YCQ1B Automatic Transfer Switch

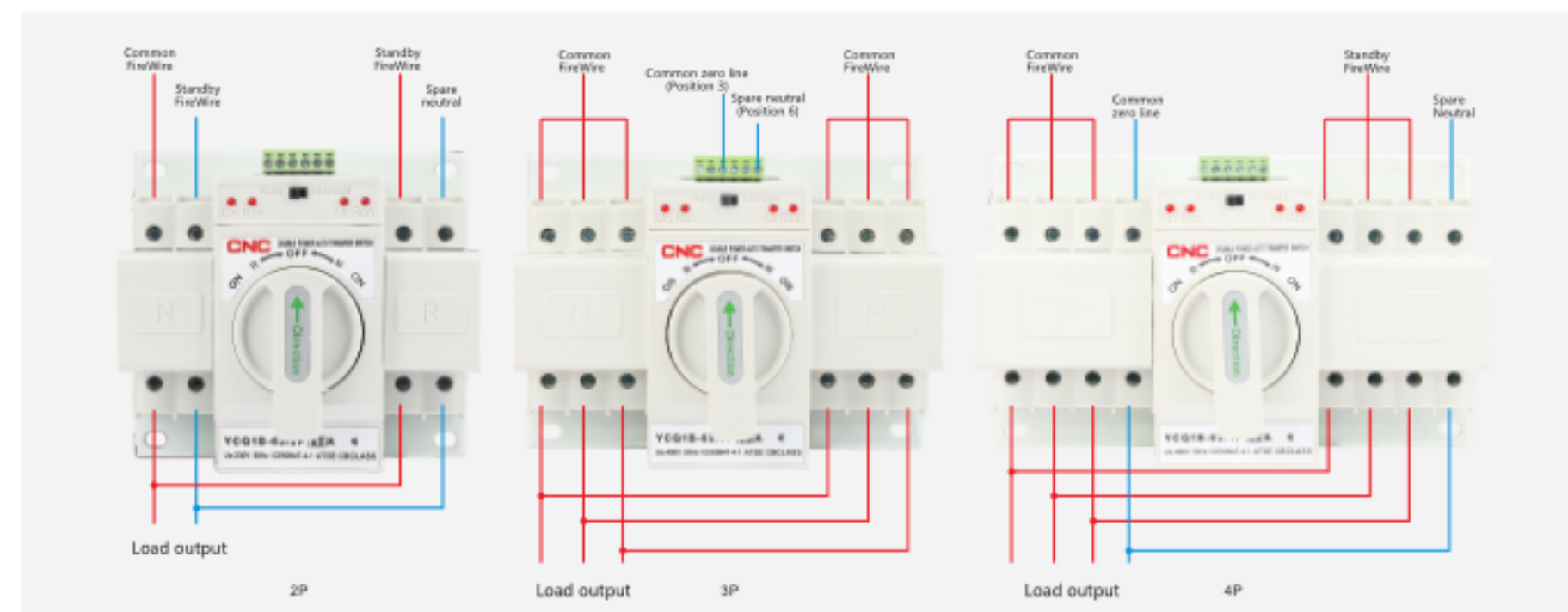
## Product Manual



## Product Size



## Product Wiring





## YCQ3B Automatic Transfer Switch

### Product Overview

The dual power automatic switch is used to switch between two power sources. It is divided into common power supply and standby power supply. When the common power supply is powered off, the standby power supply is used. When the common power supply is called, the common power supply is restored, if you do not need automatic switching in special circumstances, you can also set it to manual switching (this type of manual / automatic dual-use, arbitrary adjustment).

### Model & Explanation

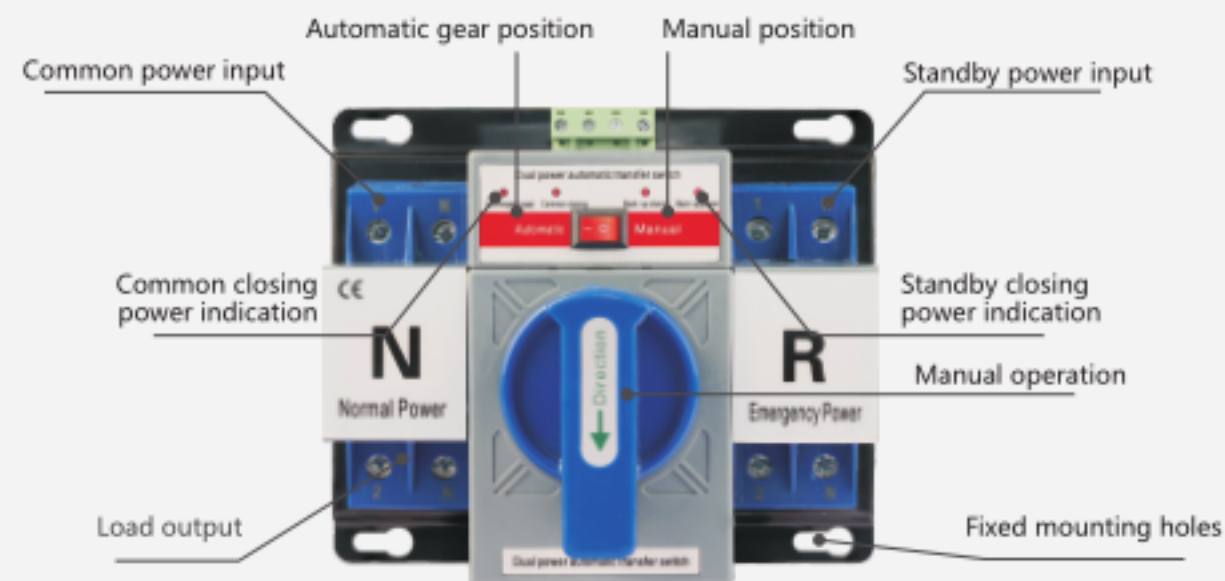
YC Q 1 B - 63 / □  
 Poles: 2P, 4P  
 Frame current  
 Mini circuit breaker  
 Design number  
 Automatic transfer switch  
 CNC

### Product Parameters

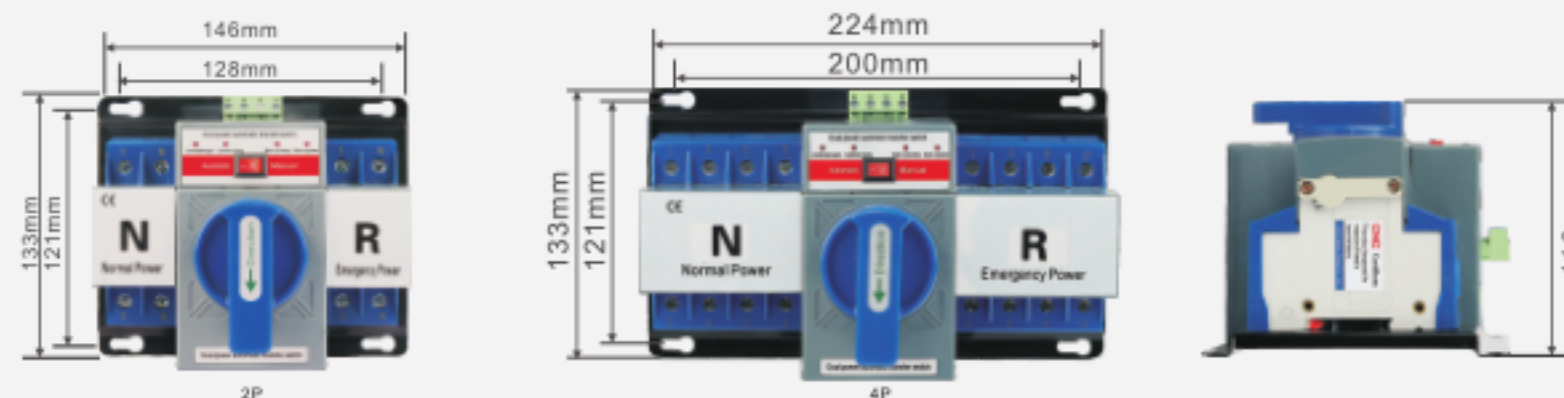
Type	YCQ3B-63
Working frequency	50Hz/60Hz
Rated voltage	AC400V
Operating Voltage	AC220V
Standards compliant	IEC60947-6-1
Product Size	146mm×133mm×116mm
Operation method	Automatic and manual
ATS level	CB
Conversion time	≤2s
Current specifications	10A-63A
Conversion method	Self-return

## YCQ3B Automatic Transfer Switch

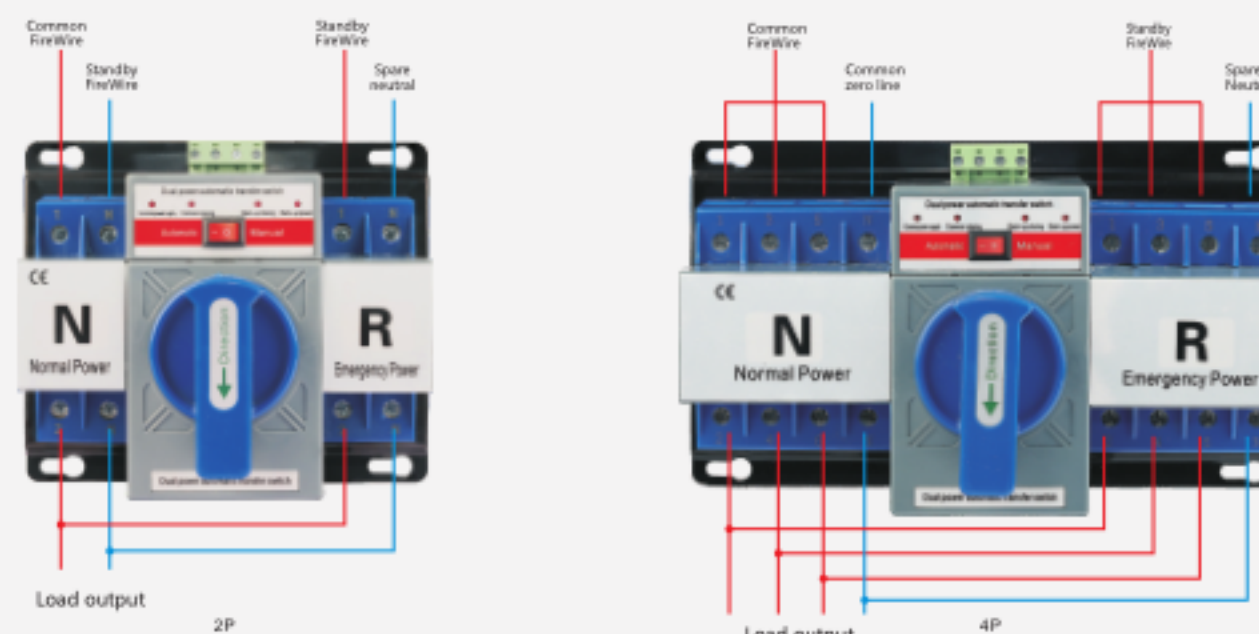
### Product Manual



### Product Size



### Product Wiring



## YCQ6B Automatic Transfer Switch



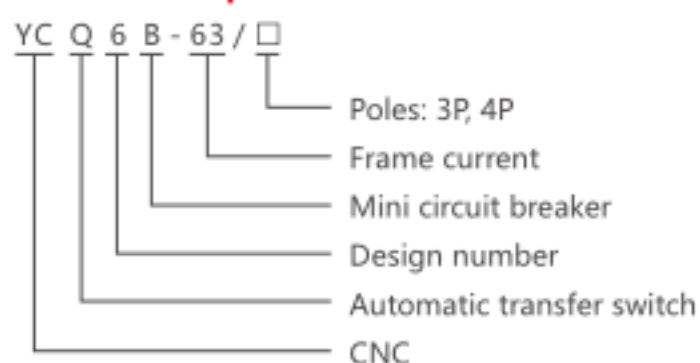
### Product Overview

YCQ6B series automatic transfer switch is applicable to 3 phases 4 wires dual power grid with AC 50Hz, rated voltage 400V and rated current up to 63A.

When a power goes wrong, it will automatic connect one or several load circuits from this power to the other power automatically, to ensure normal power supply of load circuits. And it keeps the original mini circuit breakers' overload and short circuit protection functions.

The product is suitable for industrial, commercial, high-rise and civil residential areas.

### Model & Explanation



### Operating Conditions

- Ambient air temperature  
Limit of temperature: -5°C~+40°C.  
The average no more than +35°C within 24 hours.
- Transportation and storage  
Limit of temperature: -25°C~+60°C,  
The temperature can be up to +70°C within 24 hours.
- Altitude ≤ 2000m
- Atmospheric condition  
When the temperature is +40°C, the air relative humidity should not exceed 50%, only under lower temperature can allow for higher relative humidity. If the temperature is 20°C, the air relative humidity could up to 90%, Special measures should be taken for occasional condensation due to humidity changes.
- Pollution level: Grade 3
- Electromagnetic compatibility: Environment B

## YCQ6B Automatic Transfer Switch

### Specifications

Type	Data
Original	YCB6H-63
Rated operational current (Ie)	6, 10, 16, 20, 25, 32, 40, 50, 63
Rated operational voltage (Ue)	AC 400V
Rated frequency	50Hz
Rated insulation voltage (Ui)	500V
Rated impulse withstand voltage (Uimp)	4KV
Poles	3P, 4P
Rated short circuit making capacity (Icm)	9.18KA
Rated short circuit breaking capacity (Icn)	4.5KA
Mechanical life	10000
Electrical life	3000
Electrical Appliances Class	CB
Use Category	AC-33iB
Sampling mode	Three-phase sampling
Structure type	Integrated
Controller type	Type A & Type B

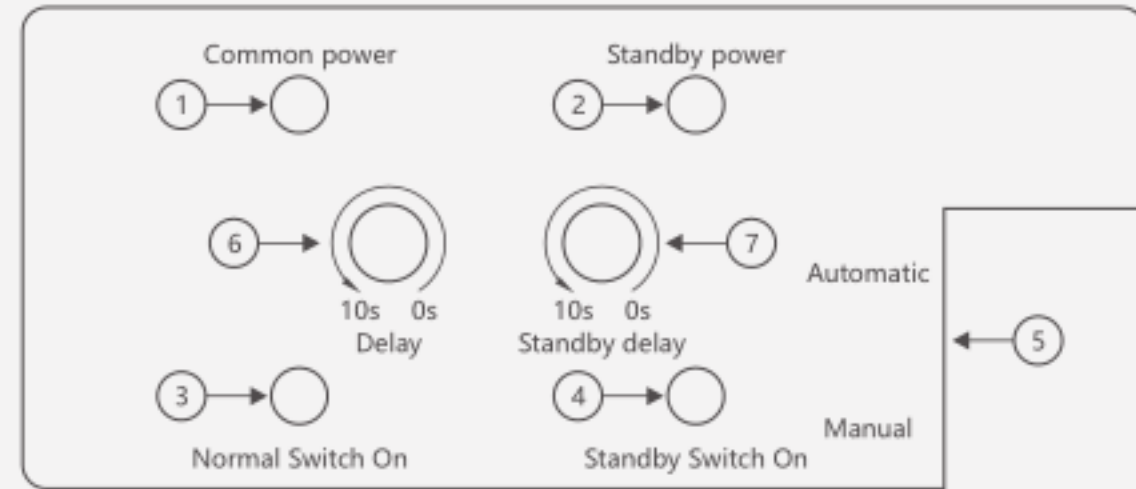
### Controller features and functions

Features	Item No	Type A (standard type)	Type B (smart type)
Manual automatic conversion mode		■	■
Main contact working position			
Common power supply closed		■	■
Standby power supply closed		■	■
Double break		■	■
Automatic control			
Monitoring the common power supply		■ Phase/ failure, under-voltage and over-voltage fault	
Monitoring the standby power supply		■ Phase/ failure, under-voltage and over-voltage fault	
Self-recovery		■	■
Grid-grid		■	■
Phase-break and voltage-loss conversion		■	■
Undervoltage conversion		■	■
Delay adjustable		■	■
Transfer delay		0-30s adjustable	0-30s adjustable
Return delay		0-30s adjustable	0-30s adjustable
Generator control		-	Optional
Fire linkage		■	■
Fire feedback		■	■
Indication			
Closing, breaking, double break indication		-	■
Common, standby power indication		-	■
Parameter setting indication			



## YCQ6B Automatic Transfer Switch

### Specifications



① Common power indicator

This indicator is on when the common supply voltage is normal;

② Standby power indicator

This indicator lights up when the standby power supply voltage is normal;

③ Common power supply closure indicator

This indicator is on when the switch is in a common power position;

④ Standby power-off indicator

This indicator is on when the switch is in the standby power position;

⑤ Automatic / manual rotation mode selection switch

When the control switch is in the upper position, it is automatic switching mode, and at the bottom it is manual switching mode;

⑥ Conversion delay time setting potentiometer (commonly used power conversion and return delay time)

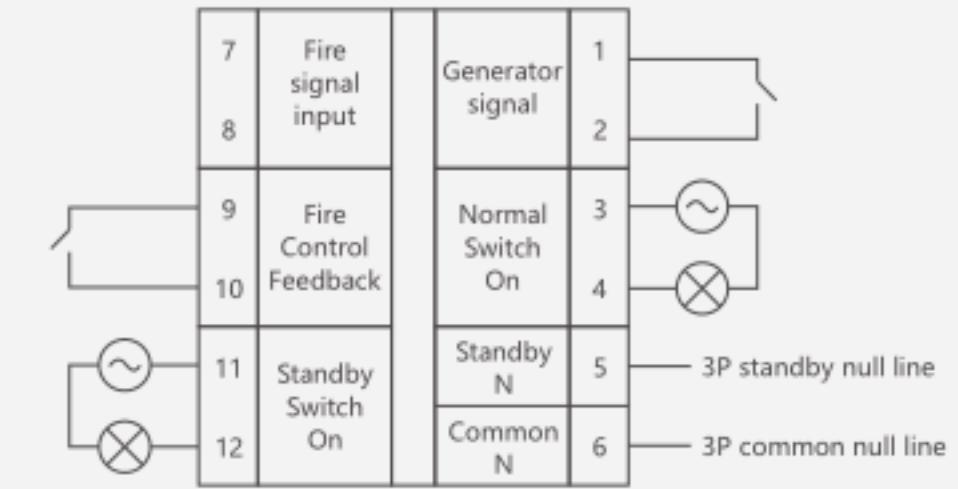
When the switch is in the closed position of the common power supply, if the common power supply fails and the standby power supply is normal, the controller starts timing (the timing time is set by the conversion delay potentiometer), and when the timing time is over, the controller controls the switch to switch to the standby power supply. If the delay time is set a little larger, the switching caused by the instantaneous voltage drop of the power grid can be avoided (for example, the temporary voltage reduction caused by the start-up of a large motor in a power grid). When the common power supply is normal, the controller starts timing (the timing time is set by the conversion delay potentiometer), and when the timing time is over, the controller controls the switch to switch to the common power supply (self-switching mode);

⑦ Conversion delay time setting potentiometer (standby power conversion and return delay time)

When the switch is in the closed position of the standby power supply (mutual standby mode), if the standby power supply fails and the commonly used power supply is normal, the controller starts timing (the timing time is set by the conversion delay potentiometer), and when the timing time is over, the controller controls the switch to switch to the common power supply.

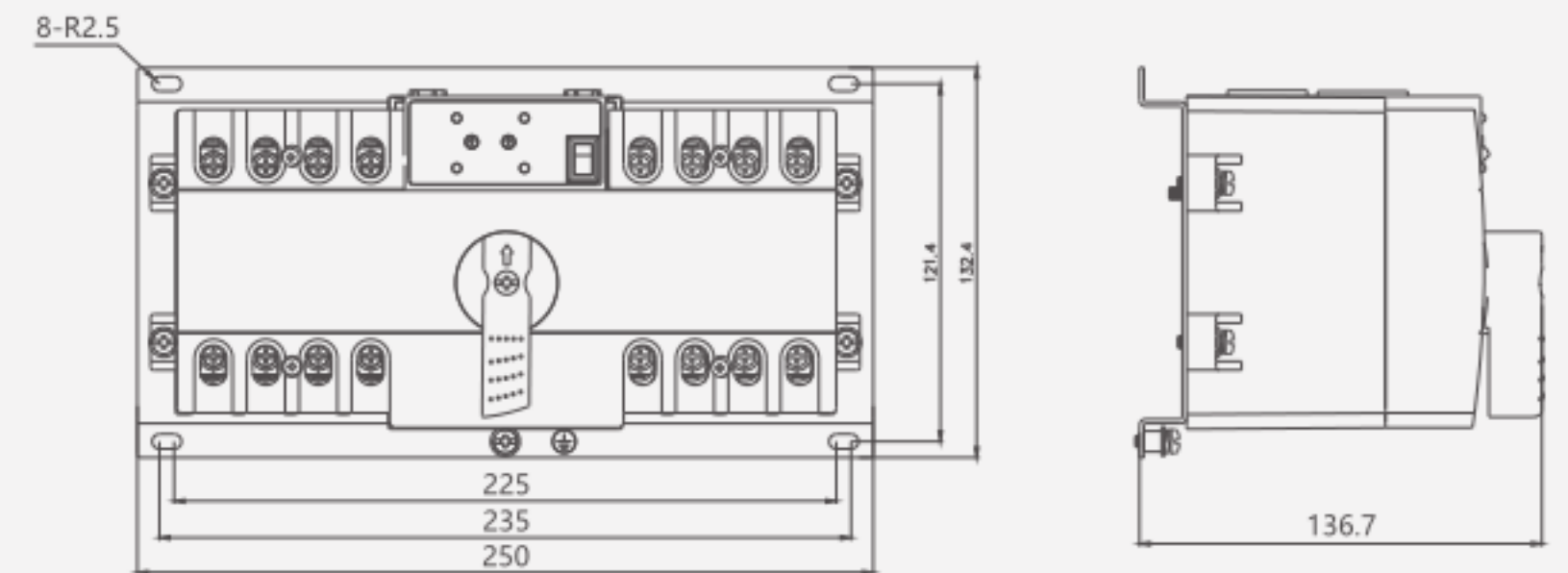
## YCQ6B Automatic Transfer Switch

### Schematic of the wiring of the controller



Remark: stand for external auxiliary power supply.  
Type B controller wiring diagram

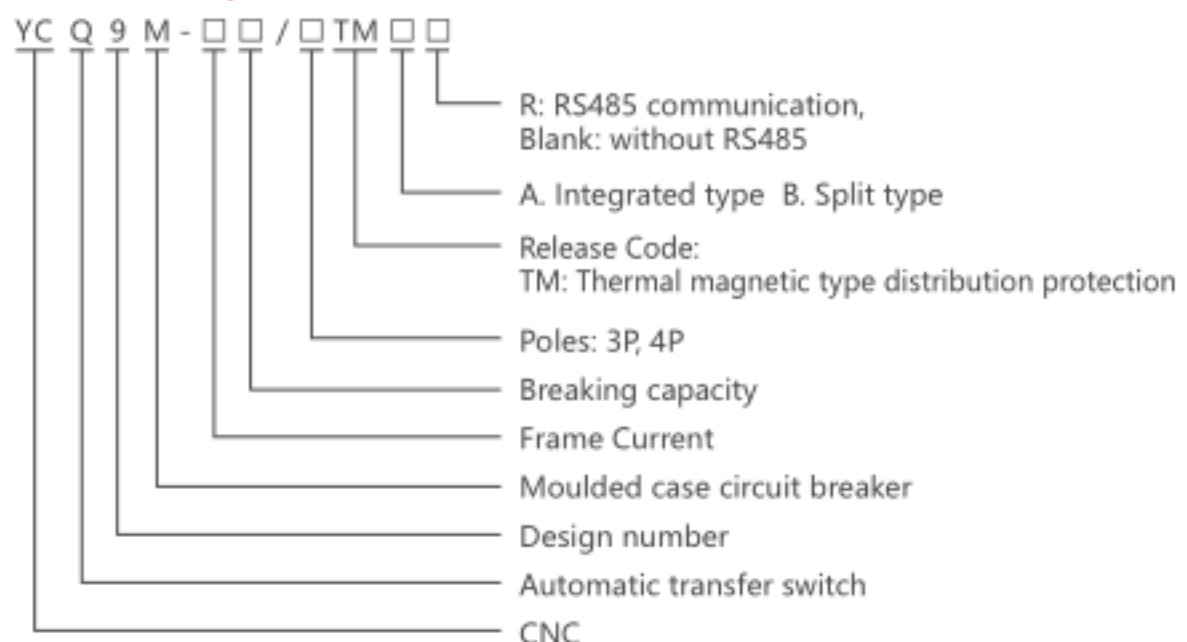
### Overall and mounting dimensions(mm)



## YCQ9M Automatic Transfer Switch



### Model & Explanation

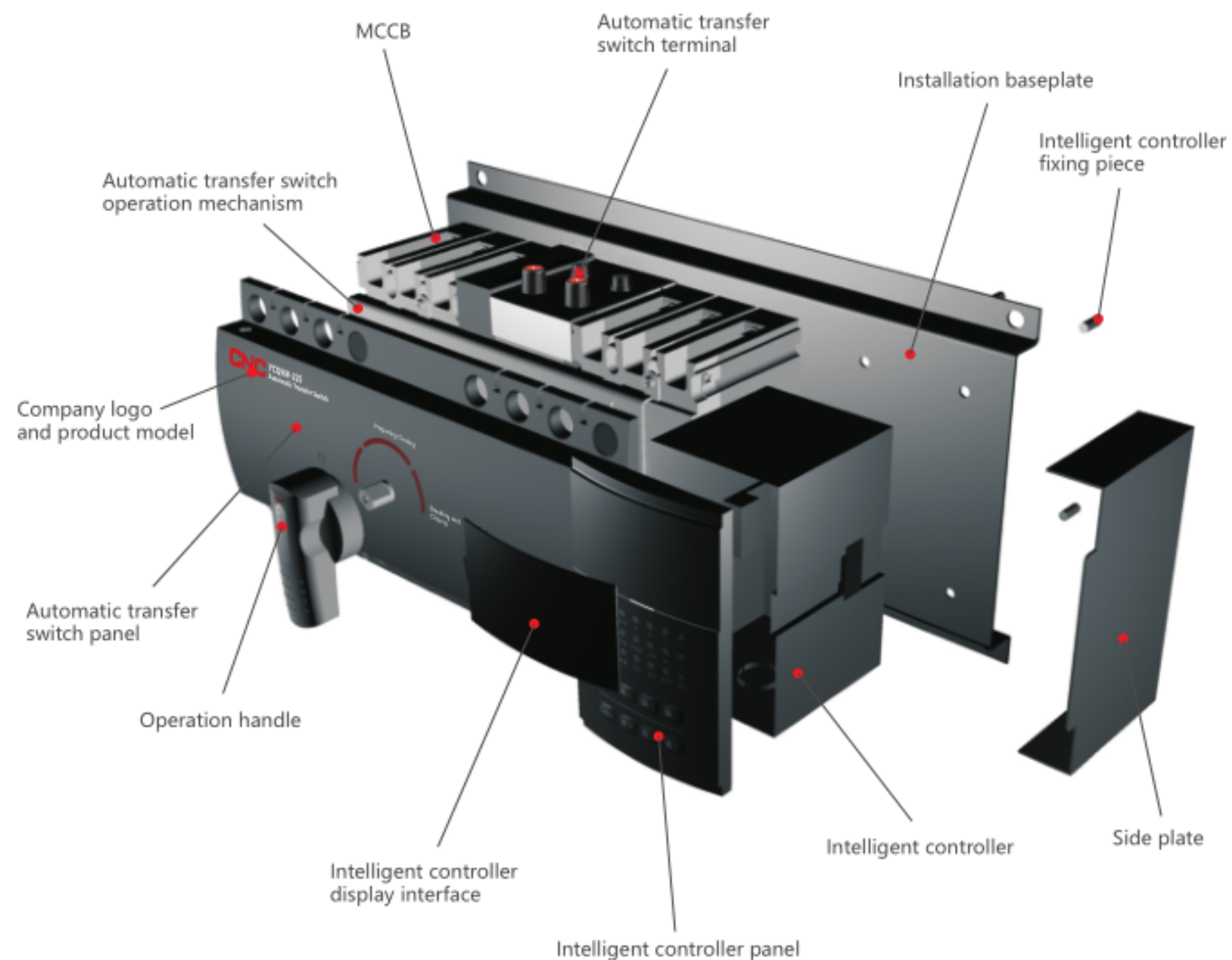


### Product Overview

1. Ensure un-interruptible service of critical electric power  
When overvoltage, under-voltage or phase failure occur to a power supply, it will automatically switch over to another power supply or start the electric generator. It is mainly used in hospital, shopping mall, bank, hotel, high buildings and fire control where long time power disconnection is not allowed and ceaseless power supply is needed.
2. Full automatic power supply changeover system  
It is equipped with three changeover methods including self-throwing and self-reset (power network to power network), self-throwing and not self-reset (power network to power network), self-throwing and self-reset (power network to power generation), in order to satisfy different power changeover requirement.
3. Intelligent  
It has communication interface with built-in RS485, and has two kinds of communication agreement including MODBUS-RUS and electric meter 1997, which can realize real time data upload, distance data configuration and condition monitor, and can achieve the function of telecommand, telemetry, remote control, and remote regulating. Remote vision can be achieved through matching intelligent power distribution system.
4. Safe and reliable, and have fire control linkage function  
When fire disaster occurs to no fire control load, fire protection control center can send signal to intelligent controller, cut off double power supply, ensure fire disaster load to break.

## YCQ9M Automatic Transfer Switch

### YCQ9 Explosion Drawing Instruction





## YCQ9M Automatic Transfer Switch



### Function Introduction

Function	Full-function type
Manual mode	■
Automatic mode	■
Motor protection function	■
Main contact working position (performing circuit breaker)	
Normal power supply closed	■
Reserve power supply closed	■
Double break	■
Automatic control	
Monitoring normal power supply	■
Monitoring reserve power supply	■
Self-throwing and self-reset	■
Self-throwing and non self-reset	■
Reserve for each other	■
Power grid-power grid	■
Power grid-power generation	■
Phase failure instantaneous protection	■
Under-voltage protection 150-210V	adjustable
Over-voltage protection 230-280V	adjustable
Voltage loss protection 30% Ue	■
Fire control function	■
Changeover time delay 0-100s continuous adjustable	■
Returning time delay 0-100s continuous adjustable	■
Frequency display	■
Communication function	optional
Indication	
N on/R on/double break indication	■
Normal power supply indication	■
Reserve power supply indication	■
Fault tripping indication	■
Parameter setting indication	■
Voltage real time indication	■
Normal three phase voltage protection	three phase
Reserve three phase voltage protection	three phase

## YCQ9M Automatic Transfer Switch

### Life(N-R-N circle) and Specifications of Automatic Transfer Switch

Table 1

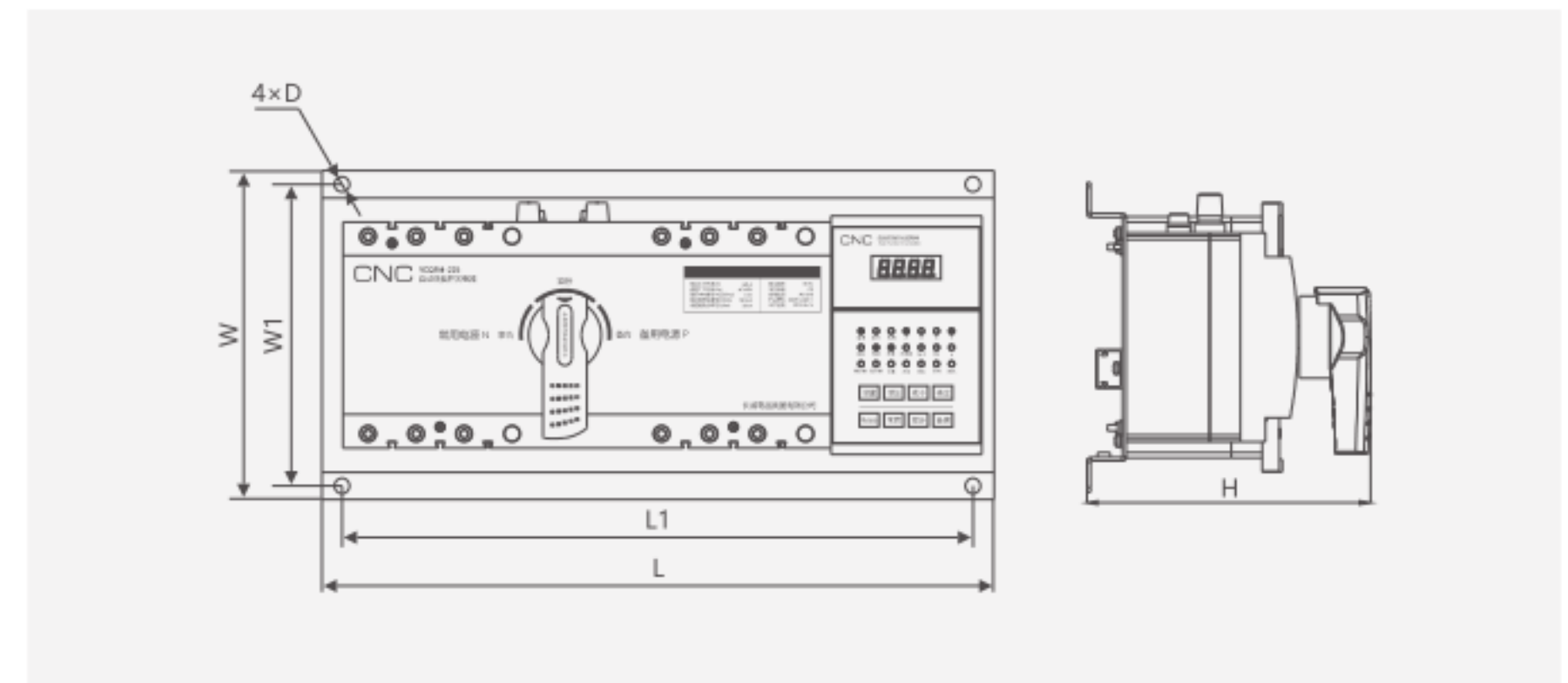
Model number	YCQ9M-125~250	YCQ9M-400	YCQ9M-630
Electrical life (t)	1000	1000	1000
Mechanical life (t)	5000	3000	2000
Total life (t)	6000	4000	3000
Rated duty	uninterrupted duty		
Under-voltage switching setpoint	180~210V		
Over-voltage switching setpoint	230~280V		
Contacts switching time	≤3s		
Switching return delay time	0.1~99.9s(Adjustable)		

### Main Technical Parameter of Automatic Transfer Switch

Table 2

Specifications	Execution breaker	Rated current (A)	Rated voltage (V)	Rated impulse withstand voltage (kV)	Rated short-circuit making capacity (kA)	Rated short-circuit breaking capacity (kA)
125M/3P	YCM1-100M/3P	16/25/32/40/50	400	8	105	50
125M/4P	YCM1-100M/4P	63/80/100/125				
250M/3P	YCM1-225M/3P	100/125/140/160				
250M/4P	YCM1-225M/4P	180/200/225/250			105	50
400M/3P	YCM1-400M/3P	225/250/315			105	50
400M/4P	YCM1-400M/4P	350/400			105	50
630M/3P	YCM1-630M/3P	400/500/630		105	50	
630M/4P	YCM1-630M/4P					

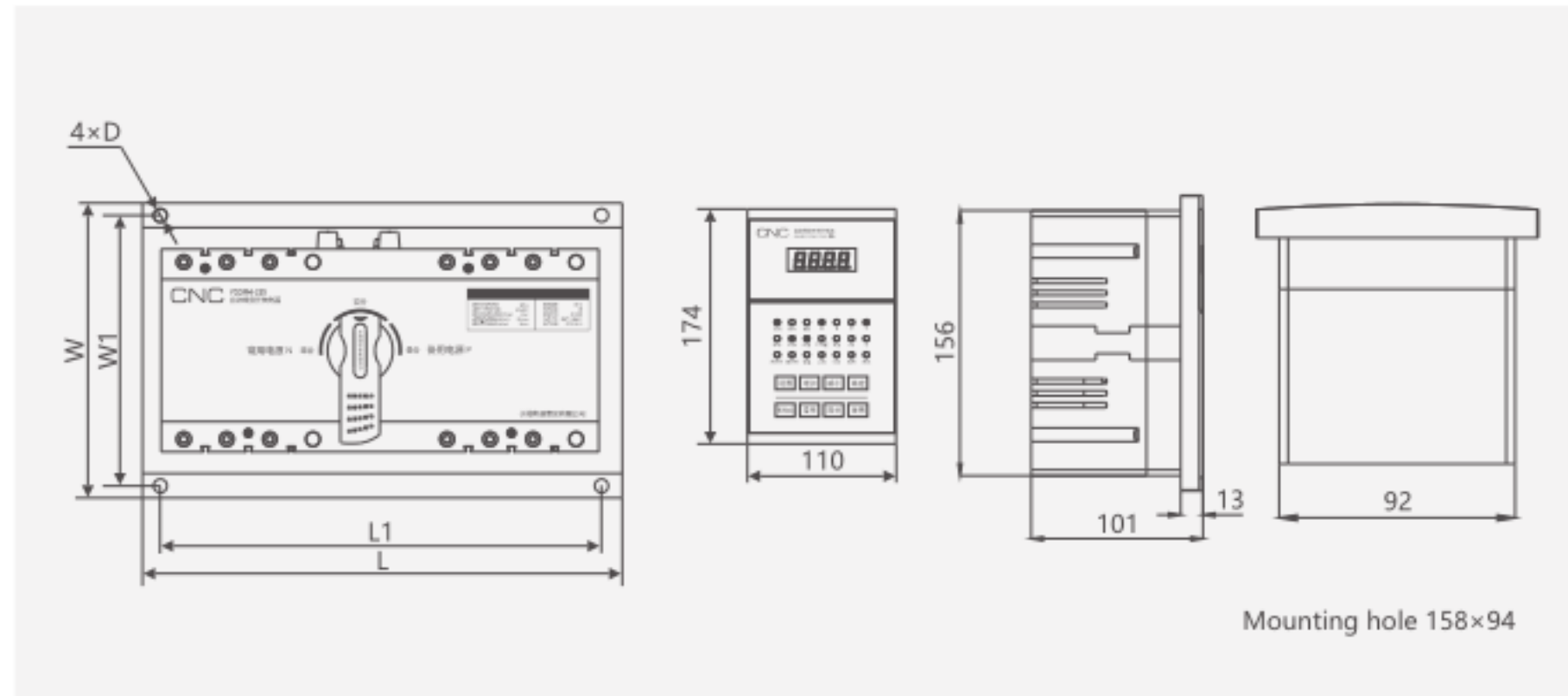
### Overall and mounting dimensions of integrated type



## Distribution Apparatus

### YCQ9M Automatic Transfer Switch

#### Overall and mounting dimensions of Split type



Specifications	Overall and mounting dimensions of integrated type						Overall and mounting dimensions of Split type					
	L	L1	W	W1	H	D	L	L1	W	W1	H	D
125/3	460	425	200	180	190	10	360	325	200	180	190	10
125/4	460	425	200	180	190	10	360	325	200	180	190	10
250/3	490	455	220	200	207	10	386	351	220	200	207	10
250/4	490	455	220	200	207	10	386	351	220	200	207	10
400/3	630	596	310	280	239	13	520	486	310	280	239	10
400/4	630	596	310	280	239	13	520	486	310	280	239	13
630/3	740	705	350	320	244	13	630	595	350	320	244	13
630/4	740	705	350	320	244	13	630	595	350	320	244	13

## Distribution Apparatus

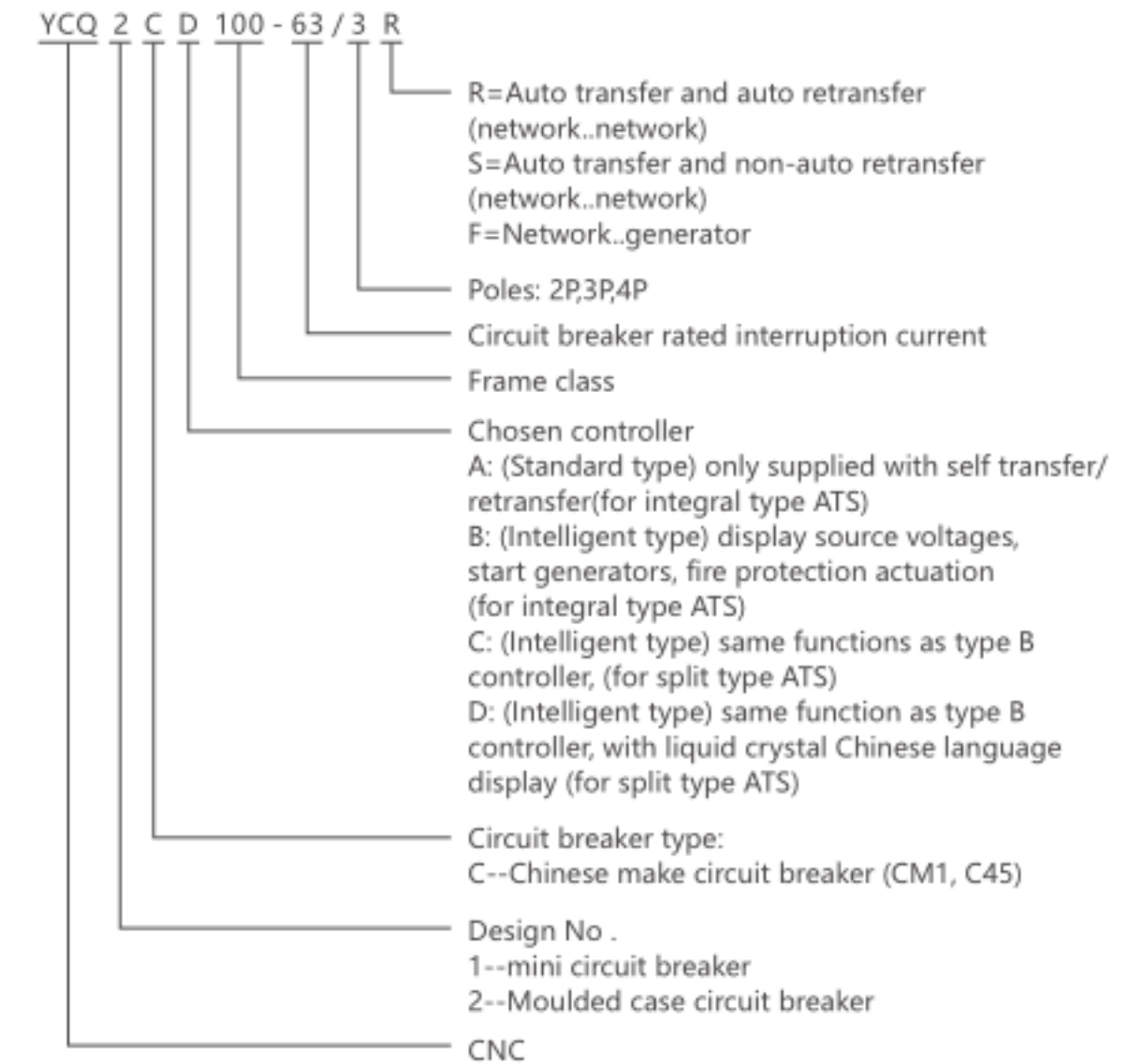
### YCQ2 Automatic Transfer Switch



#### General Introduction

YCQ2 series automatic transfer switch is mostly used to monitor the power supply circuits. When main power failed, it will change over to backup power by automatically, thus completing the transformation of power system. At present, in particular suited for the important electricity power places where disallow to failure, in order to meet the needs of the scene. Automatic switch has self-input and self-recover, self-input without self-recover, utility to utility, utility-generators work with variety functions, the product applied in 220V, AC 50Hz, rated current from 10A to 1250A (CB class) automatically switch products.

#### Product Model and Meaning





## YCQ2 Automatic Transfer Switch



### Structure and Features

YCQ2 Series intelligent dual power automatic switches is made up of two units in 3 pole and 4 pole of MCCB and(auxiliary contact, alarm contact),the mechanical interlocking transmission, intelligent controller and other components. It has the integral style and split type with two kinds mechanism. Integral controller is equipped with a base and executing agencies ; Split type is intelligent controller install ed in the panem User take the base by implementing agencies to install into the cabinet controller with about 2m cables.

1. Reliable mechanical interlock between the two circuit breakers and electrical interlock device. Eeliminate the two devices closing completely at the same time.
2. SCM intelligent controller used to control the core hardware is simple and powerful, expansion of convenience, high reliability.
3. It has a short circuit, over load protection functions, over voltage, under voltage, loss phase automatic transfer function and intelligent alarm function.
4. Automatic switching external parameters can be set free.
5. Operation of Intelligent motor protection
6. The control circuit devices with fire, fire control center to a control signal into intelligent controller. Two sets circuit breaker will enter a stating of breaking .
7. There is a computer network interface for achieving remote control four remote telemetry functions

### Main Technical parameter of YCQ2

Model	YCQ2-100/225	YCQ2-400	YCQ2-630/800/1250
Mechanical life	5000	3000	2500
Electric life	1000	1000	500
Rated working system	Uninterrupted working system		
Over voltage transfer adjustive value	270VAC		
Set the adjustive range of under voltage	(70%~85%)Ue Adjustable Continuously		
Transfer time of contact	<4s		
Open-transition delay time t1	0.5~30s Adjustable Continuously		
Open-transition delay time t2	0.5~30s Adjustable Continuously		

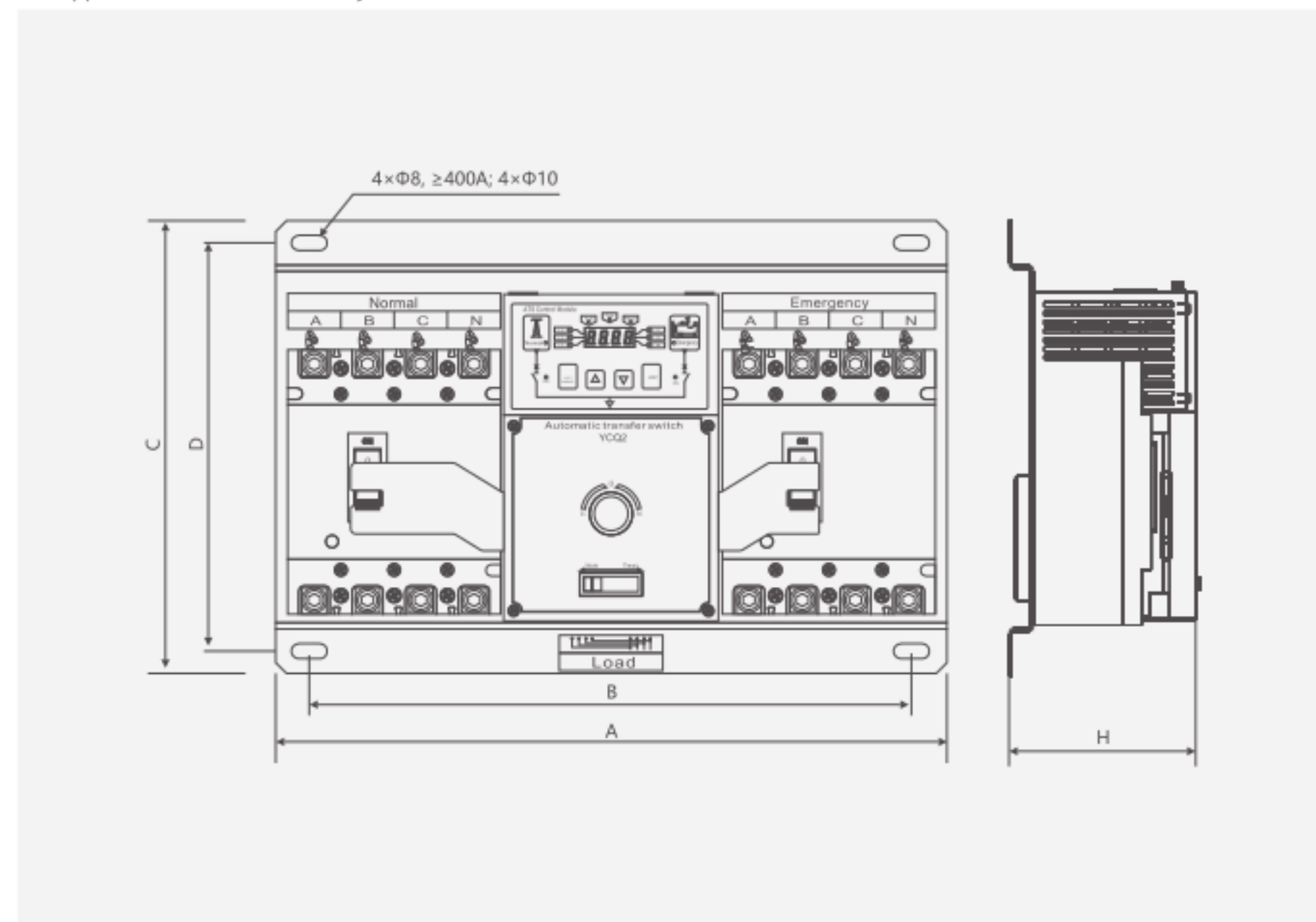
### Main technical data

Model	Match circuit breaker	Pole	Capacity of circuit breaker disjunction Icu(kA)	Rated current of circuit breaker (A)	Rated working voltage of circuit breaker (V)	Rated Insulation voltage(V)
YCQ2-63	YCM1-63	3 Poles	50	10, 16, 20, 32	AC 380(400)	500
		4 Poles	50	40, 50, 63		
YCQ2-100	YCM1-100	3 Poles	50	16, 20, 32, 40,	AC 380(400)	690
		4 Poles	50	50, 63, 80, 100		
YCQ2-225	YCM1-225	3 Poles	50	125, 160, 180	AC 380(400)	690
		4 Poles	50	200, 225		
YCQ2-400	YCM1-400	3 Poles	65	250, 315, 350, 400	AC 380(400)	690
		4 Poles	65			
YCQ2-630	YCM1-630	3 Poles	65	500, 630	AC 380(400)	690
		4 Poles	65			
YCQ2-800	YCM1-800	3 Poles	75	700, 800	AC 380(400)	690
		4 Poles	75			
YCQ2-1250	YCM1-1250	3 Poles	85	1000, 1250	AC 380(400)	690
		4 Poles	85			

## YCQ2 Automatic Transfer Switch

### Appearance and Installation Dimensions

The appearance of ATS switch body



ATS switch body dimensions

Specification	A		B		C	D	H
	3P	4P	3P	4P			
20A	285	320	245	280	255	230	141
40A	285	320	245	280	255	230	141
63A	285	320	245	280	255	230	141
80A	305	355	265	315	255	230	141
100A	335	395	295	355	256	230	141
125A	365	435	325	395	255	230	155
160A	491	587	431	527	330	300	215
250A	524	640	464	580	330	300	215
400A	580	720	520	660	340	310	215
630A	580	720	520	660	415	385	290
800A	355	425	315	385	255	230	148
1000A	497	587	437	527	355	325	215
1250A	305	355	265	315	255	230	155
1600A	335	395	295	355	255	230	155



## YCS1 Automatic Transfer Switch



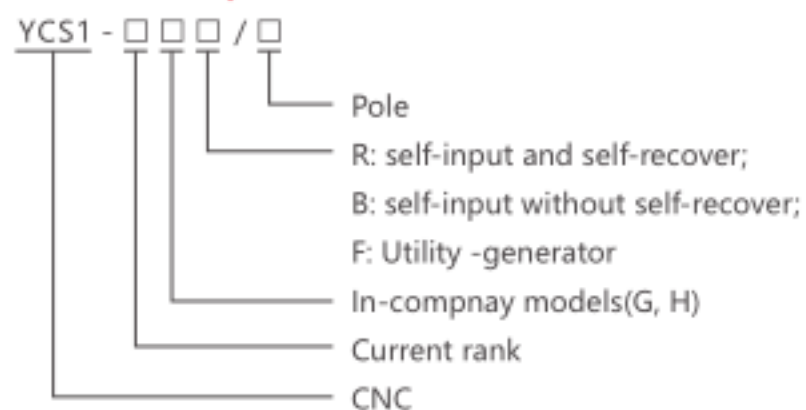
### Brief Introduction

1. YCS1 automatic transfer switch (ATSE) is set the switches and control logic integrated without additional controller, achieve integration of automatic electro mechanical switch, voltage detection, frequency detection, communication interface, electrical, mechanical interlocking functions, automatic, electric remote emergency manual control.
2. This is the logical control panel from various logical order to manage the machines, operate with the gearbox to achieve, switching spring motor storage, instantaneous release of the acceleration, rapid access to sub-circuit or circuits conversion, it is obvious by the state security confinement, greatly improved the performance of various electrical and mechanical properties.
3. YCS1 switches overall design for the metal shell, compact solid. YCS1 switches, control of some of the mental shell, the shell switching components used fiberglass unsaturated polyester resin manufacturing, with a strong dielectric properties, protection and reliability of the operational safety.
4. Switch power supply system applicable to changeover the main power supply and backup power supply automatically or two sets load equipment and safety isolation automatically.
5. Switch appearance is beautiful, creative, simple, and small size. The entire function is an ideal choice in different occasions.

### Standards

1. IEC60947-1(1998)/GB/T4048.11-2002 "low voltage switchgear and control equipment general"
2. IEC60947-3(1999)/GB14048.3-2002 "low voltage switchgear and control equipment, low voltage switches, disconnectors, Switches and electrical fuse combination"
3. IEC60947-6(1999)/GB14048.11-2002 "low voltage switchgear and control equipment multifunctional no.1:automatic transfer switches"

### Model & Explanation



### Products Usage

1. YCS1 series automatic transfer switch is applicabled in AC50HZ, rated voltage of 380V, rated voltage of 220V DC, and distribution the rated current from 16A to 3200A, in motor network, there is a primary and standby power, or as the utility to generator in loading changeover. At the meanwhile, it used to insulate in unfrequent connection break circuit as the standby power.
2. This products are widely used in hospitals, banks, high-rise architecture and so on, which are very important place disallow the failure to supply, distribution and automaticion system.

## YCS1 Automatic Transfer Switch

### Performance and Characters

1. Adopt the double row type composite contact, side pull institutions, micro motor prestore and microelectronics control technology, come true zero flashover (no arcing chamber).
2. Reliable electrical and mechanical interlocking chain, the implement of the components independently with islation switch, the use of safe and reliable.
3. Using over zero technology, the state of emergency can be enforced under the zero(cut down the 2 ways in the meanwhile) to meet the needs of Fire Fighting.
4. Executive load isolation switch using a single motor-driven, transfer reliable smooth, no noise, little impact.
5. Operators drive only in the implementation of the electrical load isolation by switching transient current, steady work without providing current, energy-saving significantly.
6. Executive load disconnecter chain with a mechanical device used to ensure that reliable standby power of non-interference in each other.
7. Obvious off position indicator, padlocks and other functions, high reliability and service life of more than 8000 times.
8. Mechatronics design, switching conversion accurate, flexible, smooth and adopt international advanced logic control technology, anti-interference capability, without external interference.
9. Cooperation with the main power on and standby power off, or the main power off and standby on, the main power and standby power are both off, three kinds stability working.(I-O-II)
10. Easy installation, the control circuit return way adopt the connect and insert terminal connector.
11. Four operator models: emergency manual operation, electric remote control operation, emergency disconnected operation under the automatic stating, automatic control operations.

### Life(N-R-N circle) and Specifications of Automatic Transfer Switch

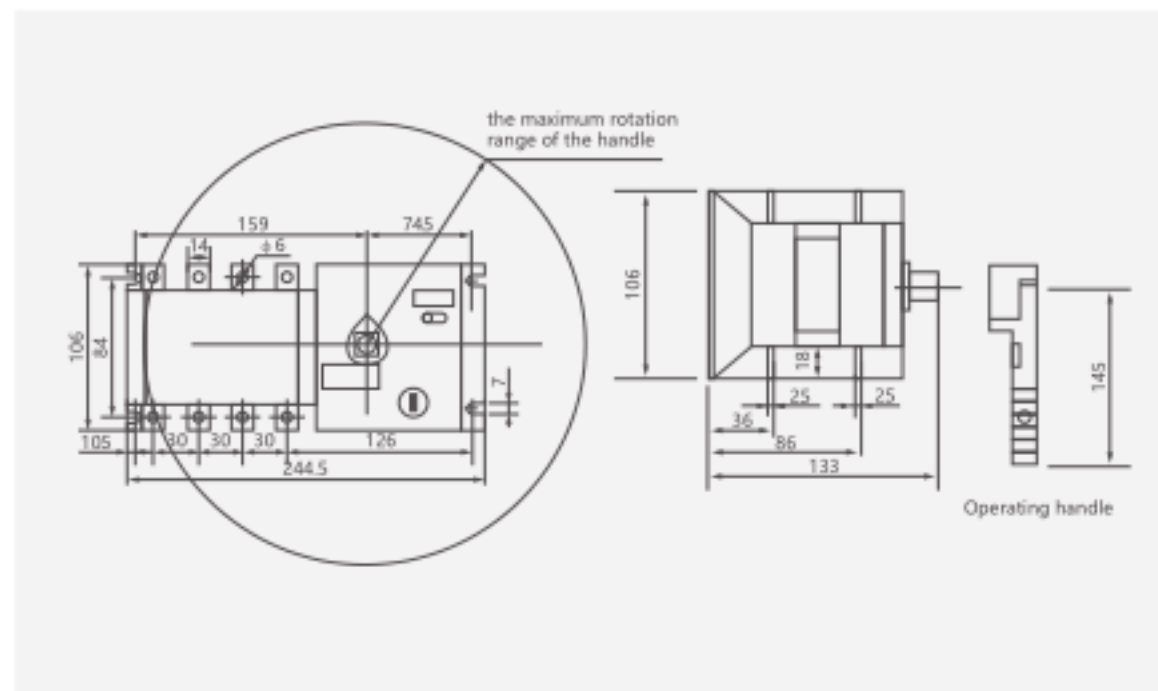
Rated current (Ith)	20 A	40 A	60 A	80 A	100 A	125 A	160 A	250 A	400 A	630 A	800 A	1000 A	1250 A	1600 A	
Rated insulation voltage (Ui)	750V								1000V						
Rated concussion withstand voltage (Uimp)	8kV								12kV						
Rated working voltage (Ue)	AC440V														
Rated working current(Ie)	AC-31A	20	40	63	80	100	125	160	250	400	630	800	1000	1250	1600
	AC-35A	20	40	63	80	100	125	160	250	400	630	800	1000	1000	1600
	AC-33A	20	40	63	80	100	125	160	250	400	400	630	800	800	1000
Rated connection capacity	10Ie														
Rated breaking capacity	8Ie														
Rated limited short circuit current (Is)	50kA								70kA				100kA	120kA	
Rated short-time withstand current (Is)	7kA				9kA				13kA	26kA	50kA				
Transfer I-II or II-I	0.45s								0.6s				1.2s		
Control power voltage	DC24V, 48V, 110V AC220V														
Electrical consumption															
Rated Start frequency	Normal	300W								325W	355W	400W	440W		
		55W								62W	74W	90W	98W		
Weight(kg) 4 pole	7.0	7.2	7.2	7.2	7.5	7.5	8.8	9.0	16.5	17	32	36	40	43	



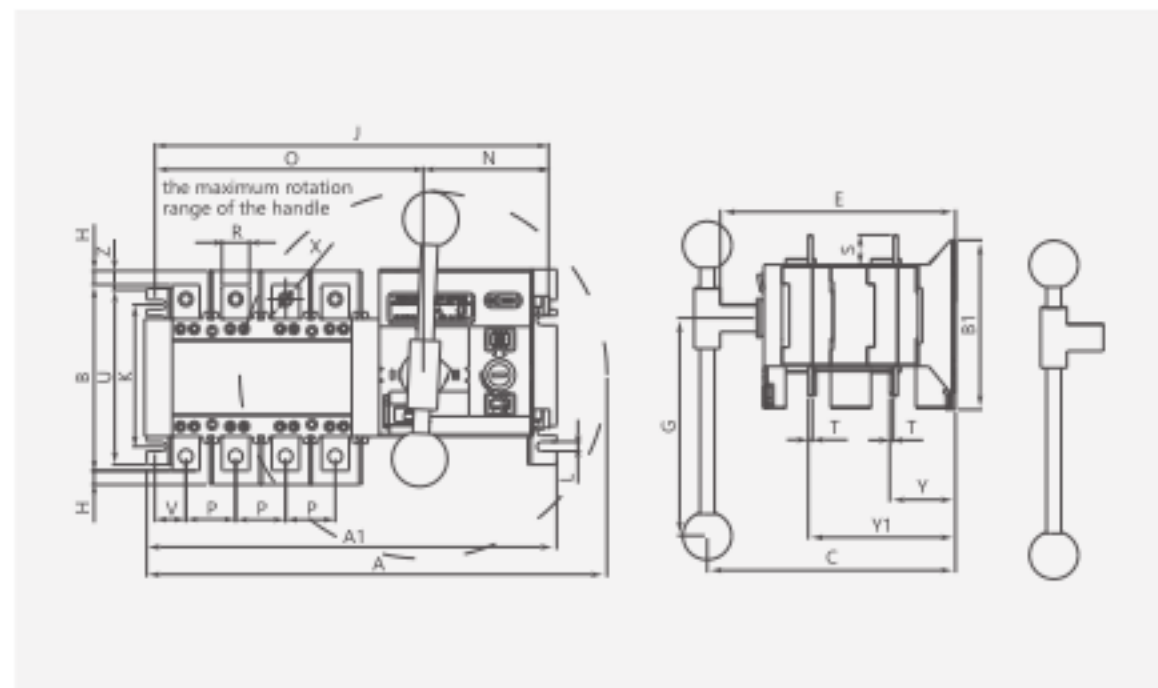
# YCS1 Automatic Transfer Switch

## GA Type Automatic Transfer Switch

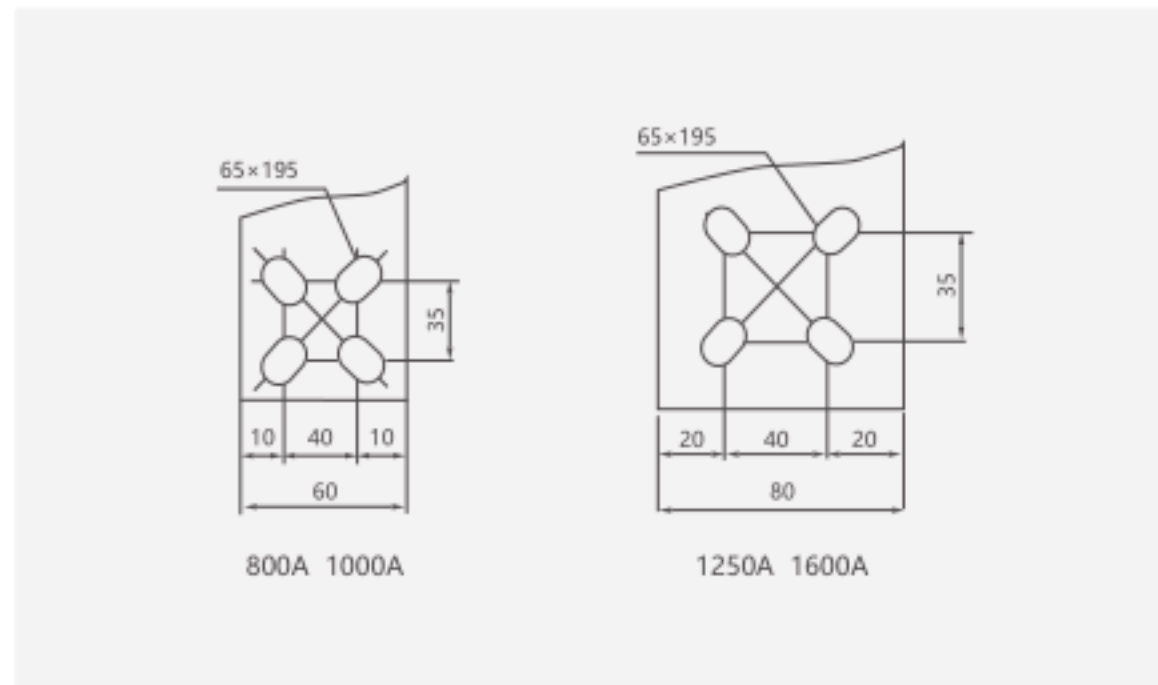
Installation dimensions(20~100A)



Installation dimensions(20~1600A)



20A~1600A Installation map

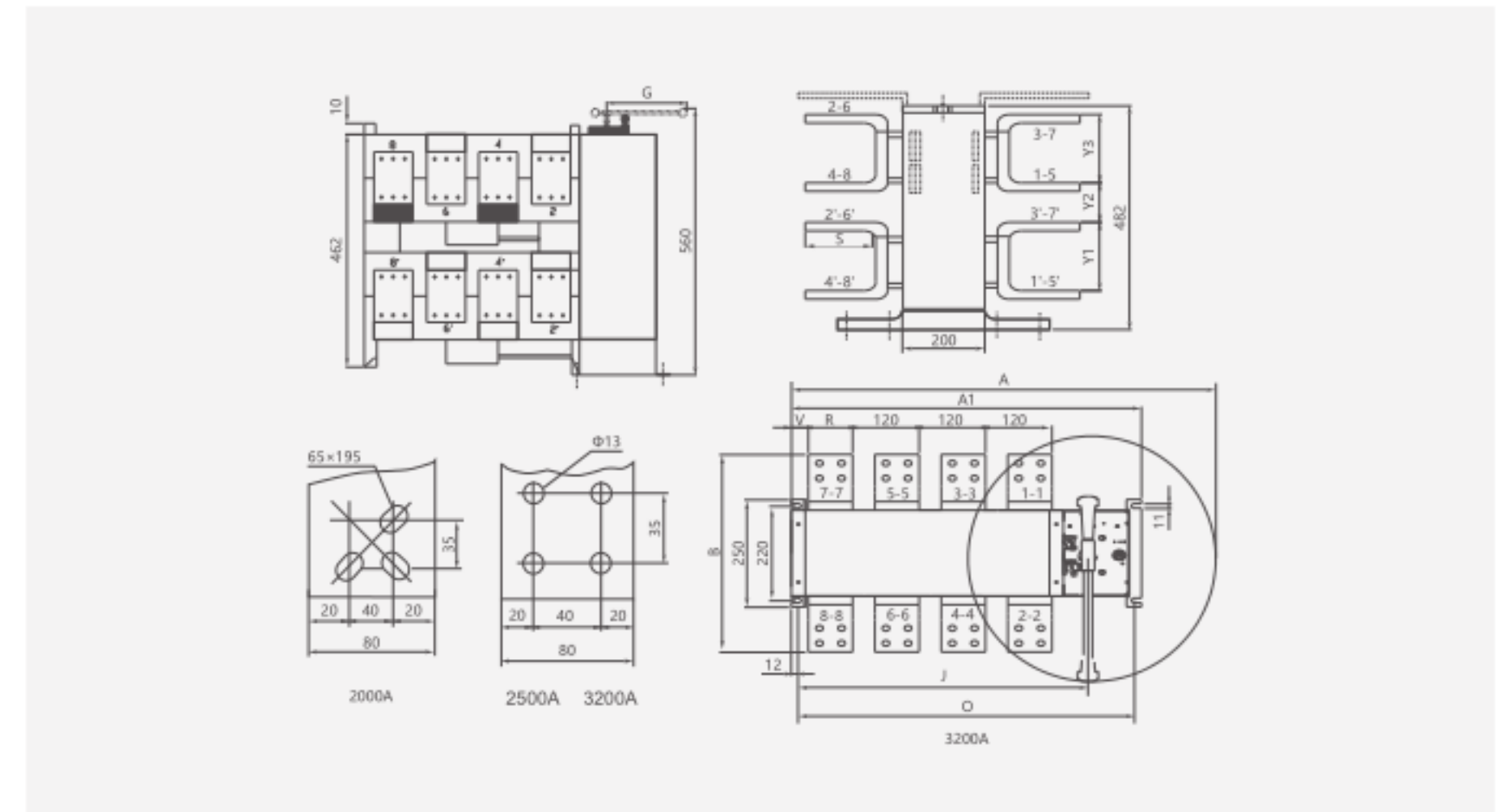


# YCS1 Automatic Transfer Switch

20A~1600A Installation Dimensions

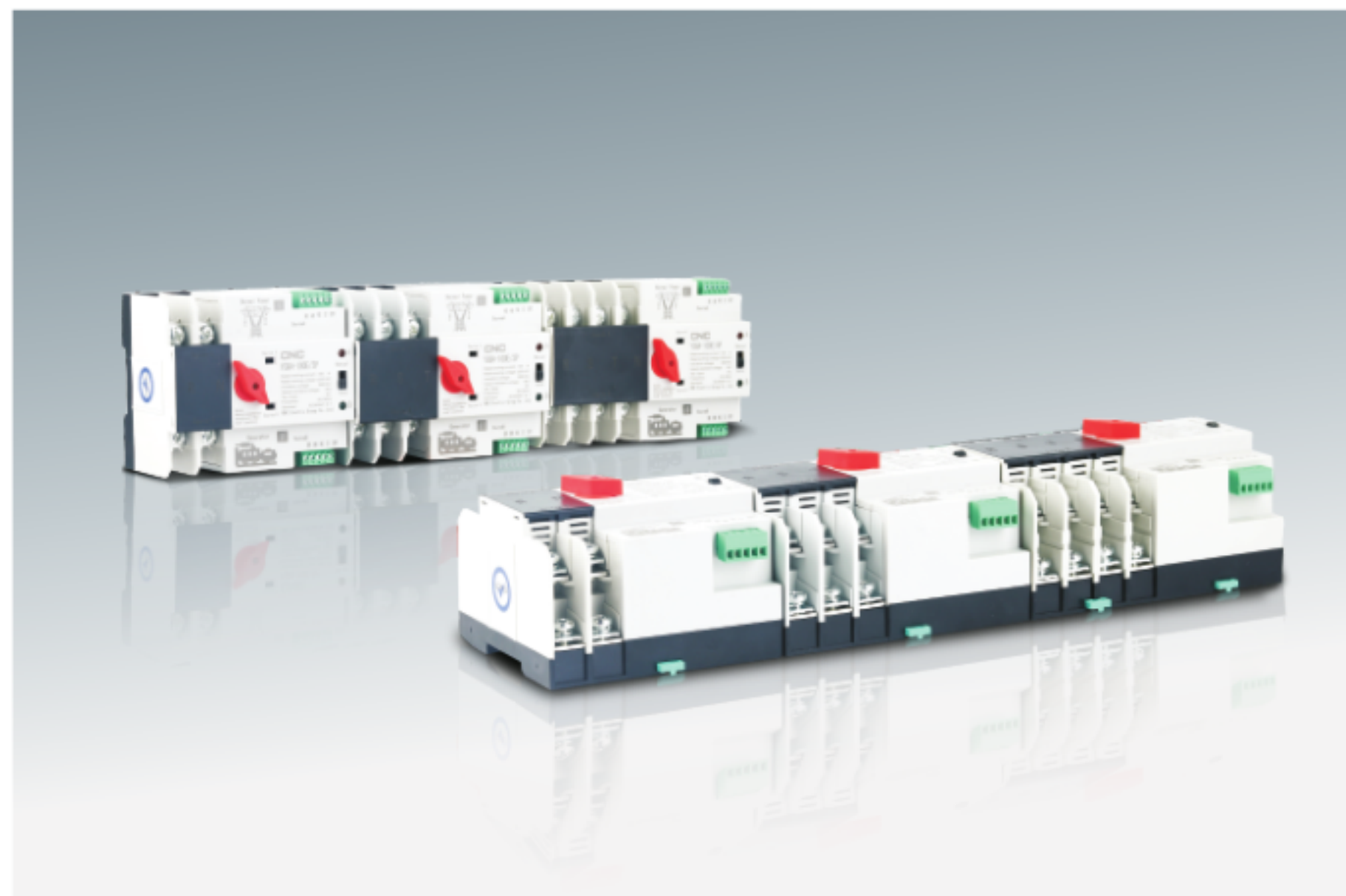
Specification	Total size							Switch installation										Connection terminal					
	A	A1	B	B1	C	E	G	H	J	K	L	N	O	P	R	S	T	U	V	ΦX	Y	Y1	Z
20A	279	243	106	103	169	145	115	19	229	85	7	76	153	30	14	18	2.5	103	20	6	41	94	3
40A	279	243	106	103	169	145	115	19	229	85	7	76	153	30	14	18	2.5	103	20	6	41	94	3
63A	279	243	106	103	169	145	115	19	229	85	7	76	153	30	14	18	2.5	103	12	6	41	94	3
80A	279	243	106	103	169	145	115	19	229	85	7	76	153	30	14	18	2.5	103	12	6	41	94	3
100A	279	243	106	103	169	145	115	19	229	85	7	76	153	30	14	18	2.5	103	12	6	41	94	3
125A	322	300	135	128	230	189	115	10	284	102	7	91	190	36	20	25	3.5	127	18	9	55	125	4
160A	322	300	135	128	230	189	115	10	284	102	7	91	190	36	20	25	3.5	127	18	9	55	125	4
250A	406	362	163	142	230	189	143	4	343	80/102	7	91	252	36	25	30	3.5	142	15	11	57	125	11
400A	552	433	234	222	230	273	189	14	416	180	9	93	323	50	40	38	5	222	18	13	83	193	19
630A	552	433	250	222	284	273	189	14	416	99/180	9	93	323	65	40	45	6	222	18	13	83	193	19
800A	760	633	328	250	284	350	443	28	613	220	11	87	526	65	60	64	8	250	31	13	109	254	54
1000A	760	633	328	250	363	350	443	28	613	220	11	87	526	120	60	64	8	250	31	13	109	254	54
1250A	760	633	336	250	363	350	443	28	613	220	11	87	526	120	80	68	8	250	21	13	110	254	54
1600A	760	633	336	250	363	350	443	28	613	220	11	87	526	120	80	68	10	250	21	13	110	255	54

2000A~3200A Installation map



2000A~3200A Installation dimensions

Specification	A	A1	B	B1	C	E	G	H	J	K	L	N	O	P
2000A	800	633	422	542	447	524	610	80	81	10	30	116	118	116
2500A	800	633	432	542	447	524	610	80	81	15	30	121	113	121
3200A	800	633	442	542	447	524	610	80	81	20	30	126	108	126



### General

The dual power automatic switch is a newly developed miniature household power switch, which is mainly used to test whether the main power supply or standby power supply is normal. When the normal power supply is abnormal, the standby power supply starts to work immediately, which ensures the continuity, reliability and safety of power supply. This product is specially designed for household rail installation and is specially used for Pz30 distribution box.

The dual power automatic switch is suitable for emergency power supply systems with 50 or 60 Hz and rated 400V AC. ATS has the characteristics of solid structure, reliable conversion, convenient installation and maintenance and long service life. It is widely used in various occasions where power failure cannot be sustained, and can be operated by electricity or manually. ATS is composed of TSE and controller.

According to IEC 60947-6-1, Part 6-1; multifunctional equipment and switchgear is formulated, it can be seen that ATS is the most qualified low-voltage switchgear and control device.

### General

IEC60647-6(1999)/GB14048.11-2002 "low voltage switchgear and control equipment multifunctional no.1:automatic transfer switches"

Control device: built in controller

Product structure: no power off, guide rail type, high current, small volume, two-stage type, simple structure, ATS integration

Features: fast switching speed, low failure rate, convenient maintenance and reliable performance

Wiring mode: front plate wiring

Conversion mode: power grid to power grid, power grid to generator, photovoltaic to urban power, automatic switching and self recovery

Product frame: 100

Product current: 10, 16, 20, 25, 32, 40, 50, 63, 80, 100A

Product classification: direct load type

Pole No.: 2, 3, 4

Standard: GB/T14048.11

ATSE: PC class

Switching time: 0.008s/8ms

### Normal operation time and installation conditions

Ambient air temperature

The maximum temperature shall not exceed 40° C the minimum temperature shall not be lower than -5° C, and the average temperature within 24 hours shall not be higher than 35° C.

Altitude

The altitude of the installation site should not be higher than 2000m.

Atmospheric conditions

When the maximum temperature reaches 40° C, the relative humidity of the installation site should not exceed 50%; when the temperature is the minimum temperature -5° C, the relative humidity is higher, for example, the temperature is 25° C, and the relative humidity is 90%. Due to the temperature change, special measures should be taken to deal with the occasional condensation on the surface of the product.

Pollution grade

The pollution grade of ATS conforms to grade 3 specified in GB/T14048.11.

Installation category

The installation type of ATS conforms to the category specified in GB/T14048.11.

Installation conditions

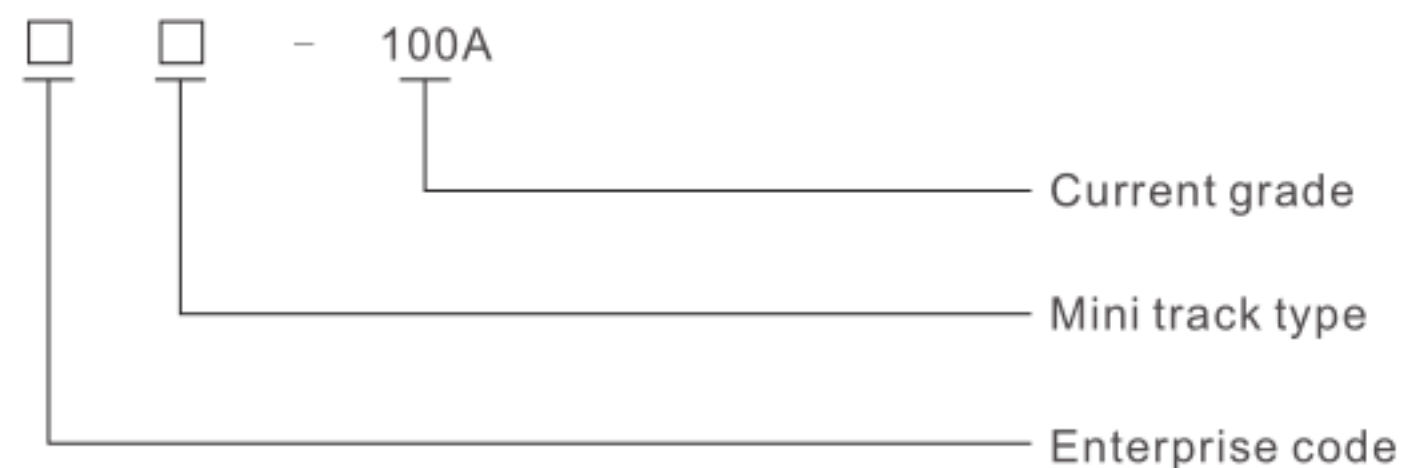
ATS can be installed vertically in control cabinet or distribution cabinet. Make sure the installation distance meets the requirements in Figure 8.



## Distribution Apparatus

### YCQ4E/YCQ4R PC type Automatic Transfer Switch

#### Model and meaning

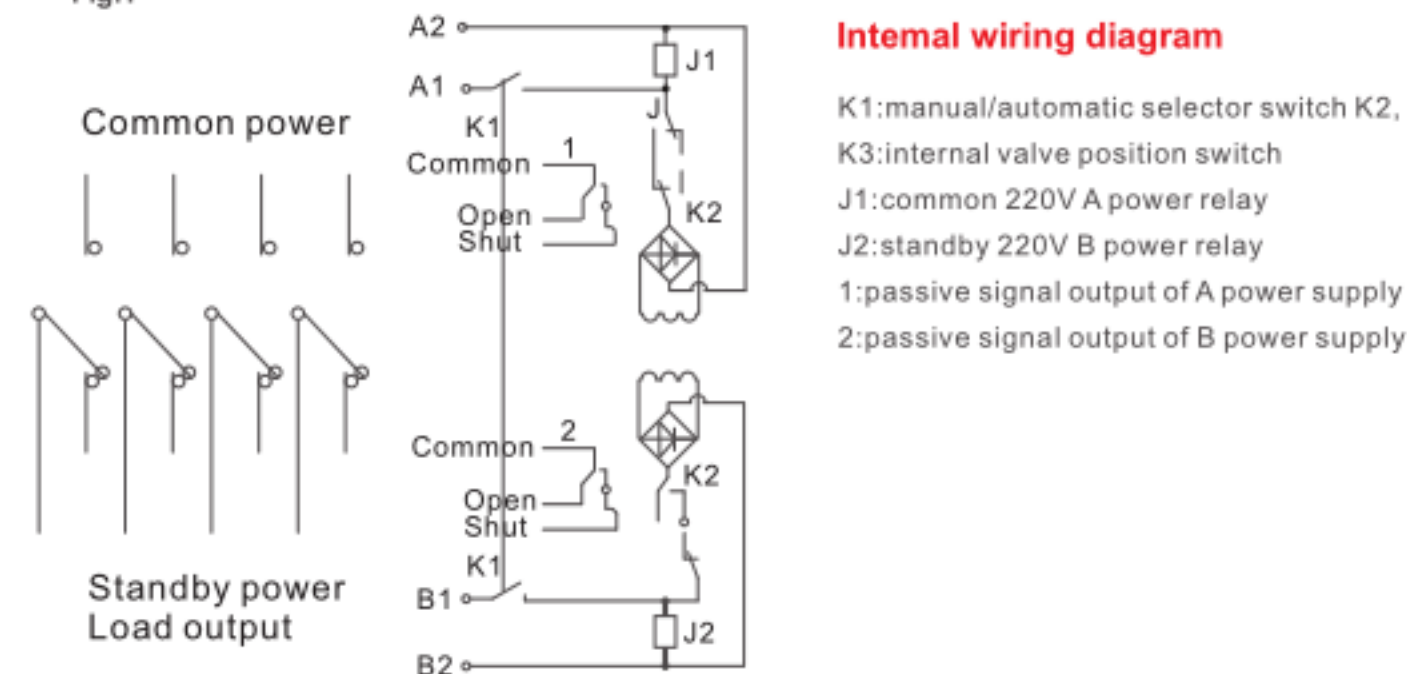


Specification	100A		
Rated current $I_e(A)$	16,20,25,32,40,50,63,80,100		
Insulation voltage $U_i$	AC690V,50Hz		
Rated voltage $U_e$	AC400V,50Hz		
Classification	PC class:can be manufactured withstood without short circuit current		
Utilization category	AC-33iB		AC-31B
Pole No.	2P	3P	4P
Weight(kg)	1.7	2.1	2.6
Electrical	Life: 2000 times; Manual operation: 5000 times		
Rated short circuit current $I_q$	50kA		
Short circuit protection device(fuse)	RT16-00-63A		
Rated impulse withstand voltage	8kV		
Control circuit	Rated control voltage $U_s$ :AC220/50Hz Normal working conditions: 85-110% $U_s$		
Auxiliary circuit	2 relays,each with two sets of contact converter contact capacity:AC200V/50Hz $I_e=5y$		
Conversion time of contactor	< 50ms		
Operation conversion time	< 50ms		
Return conversion time	< 50ms		
Power off time	< 50ms		

## Distribution Apparatus

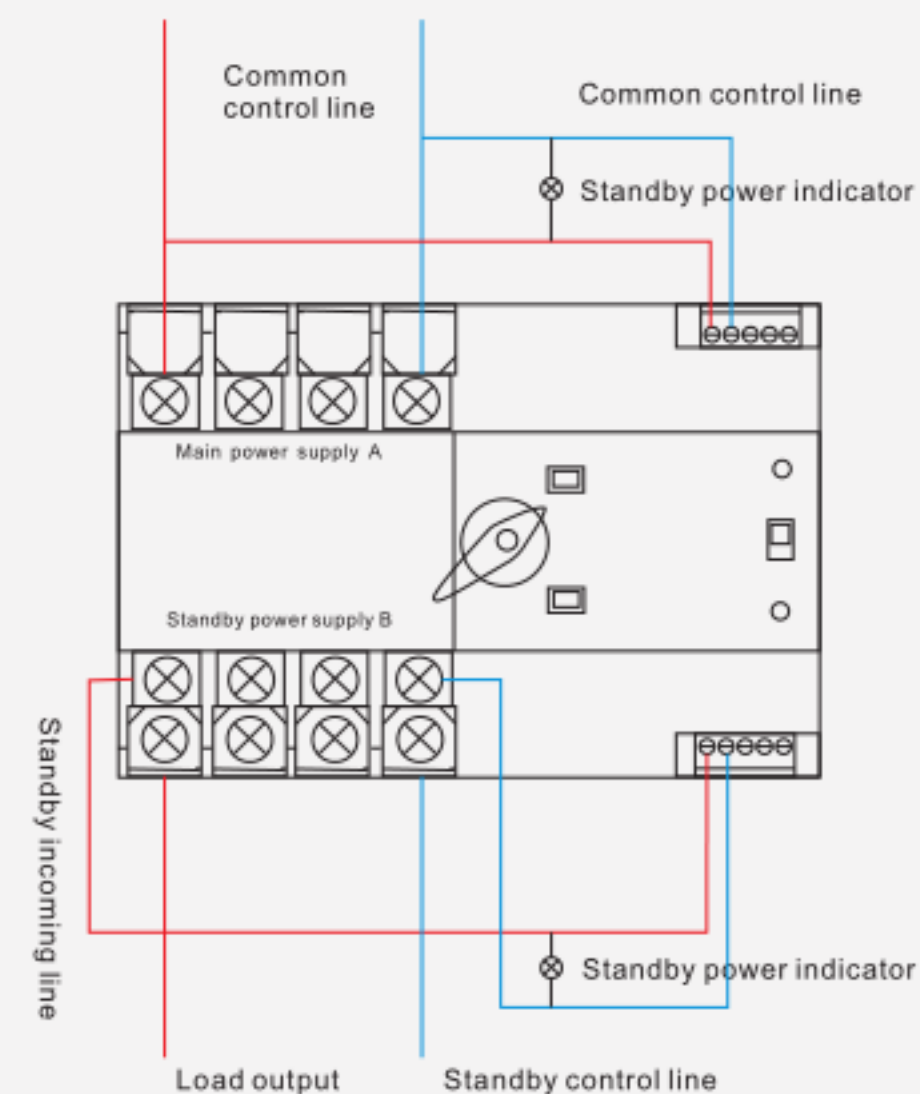
### YCQ4E/YCQ4R PC type Automatic Transfer Switch

Fig.1



Controller wiring diagram of 100E

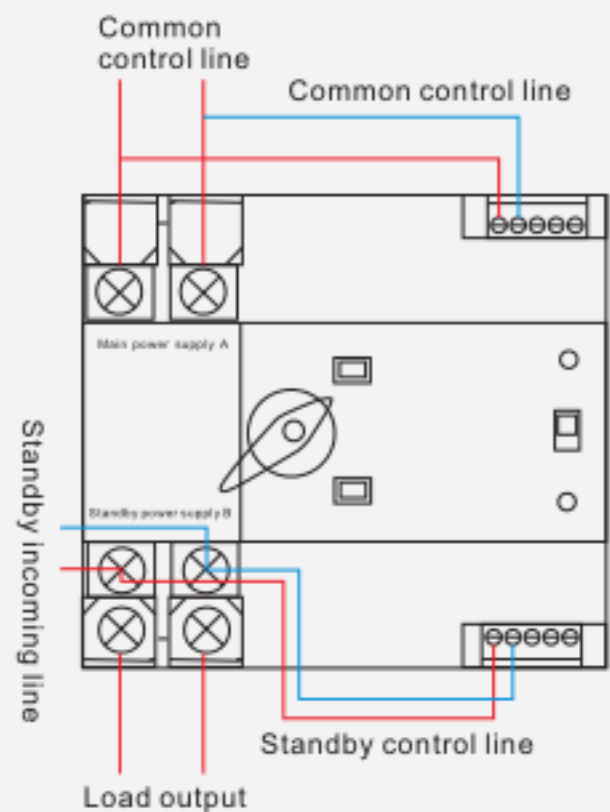
Fig.2



YCQ4E/YCQ4R PC type Automatic Transfer Switch

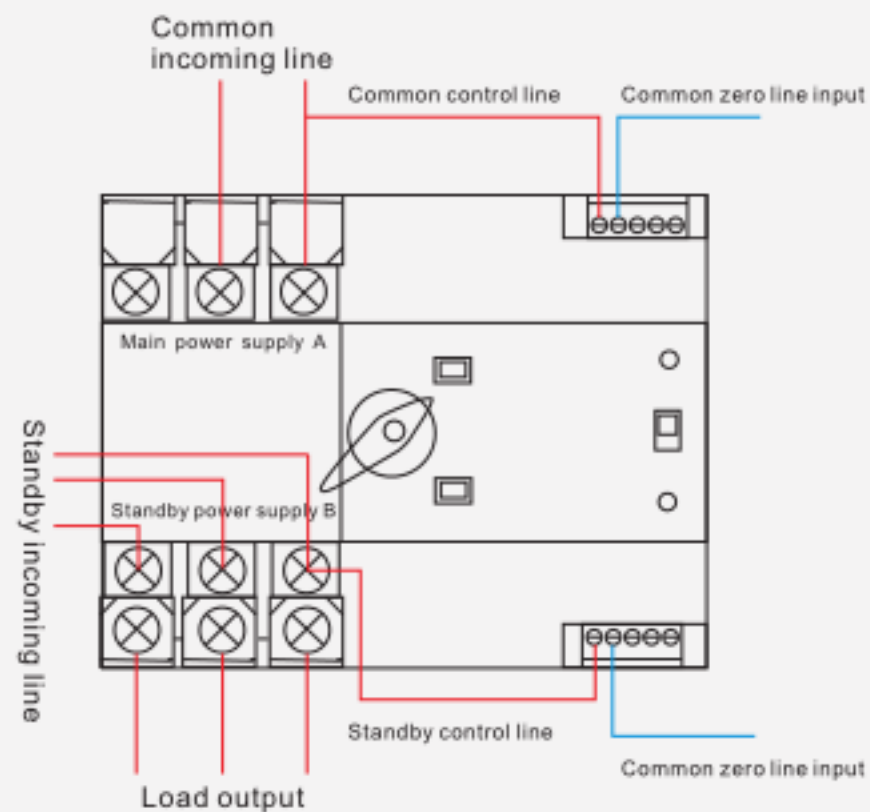
100/2P wiring diagram of 100E

Fig.3



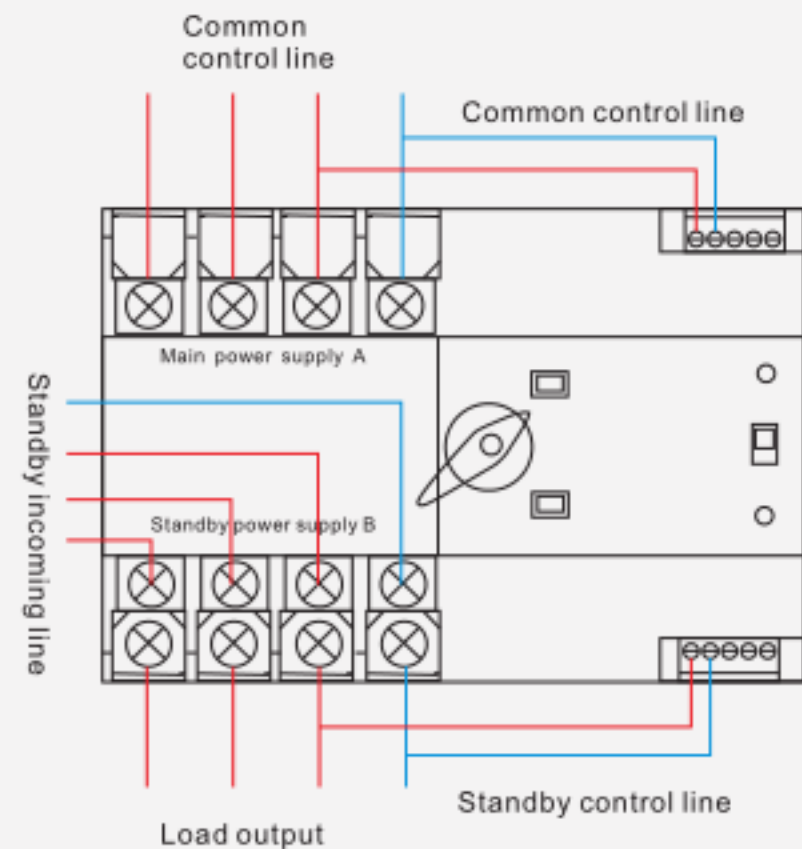
100/3P wiring diagram of 100E

Fig.4



100/4P wiring diagram of 100E

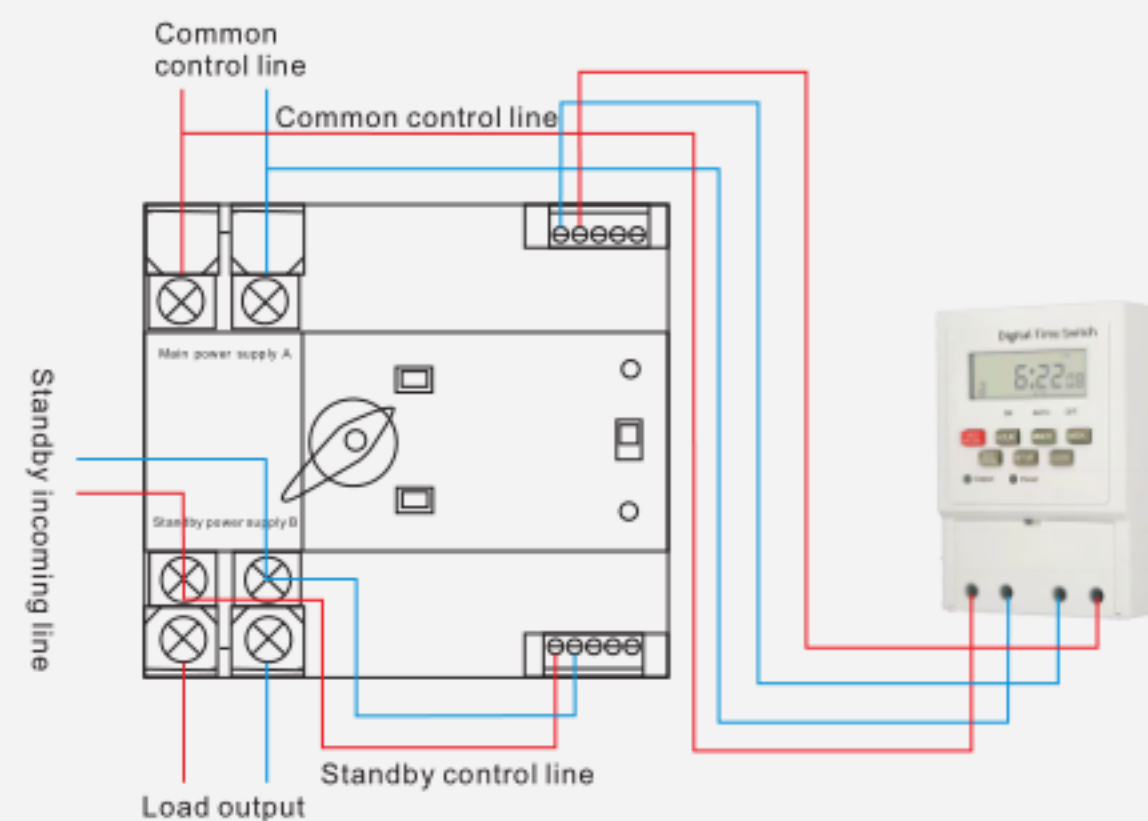
Fig.5



YCQ4E/YCQ4R PC type Automatic Transfer Switch

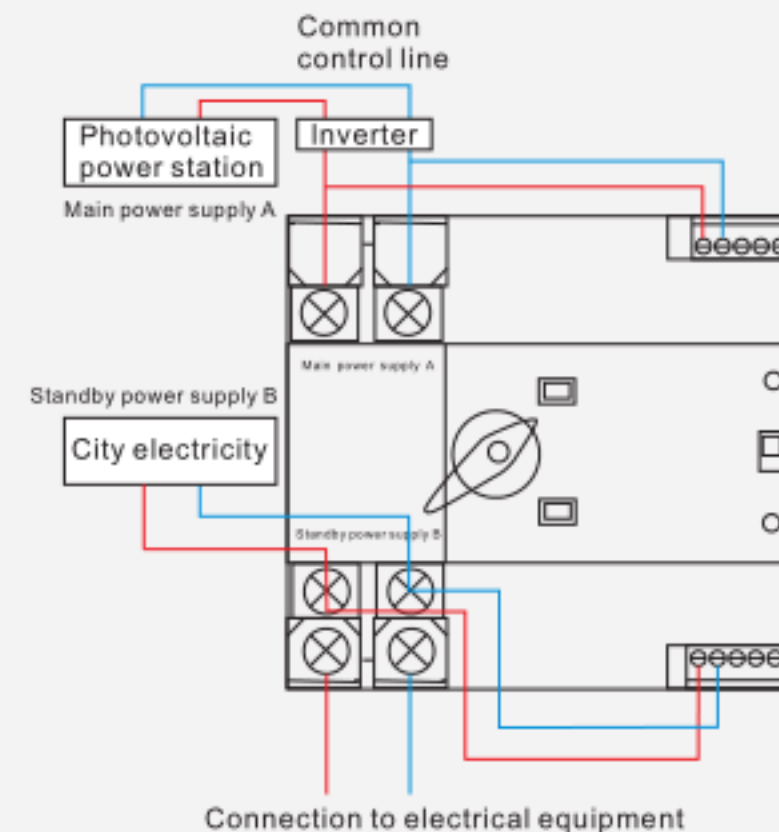
Timing switching connection mode of 100E

Fig.6



Special connection mode of photovoltaic inverter of 100E

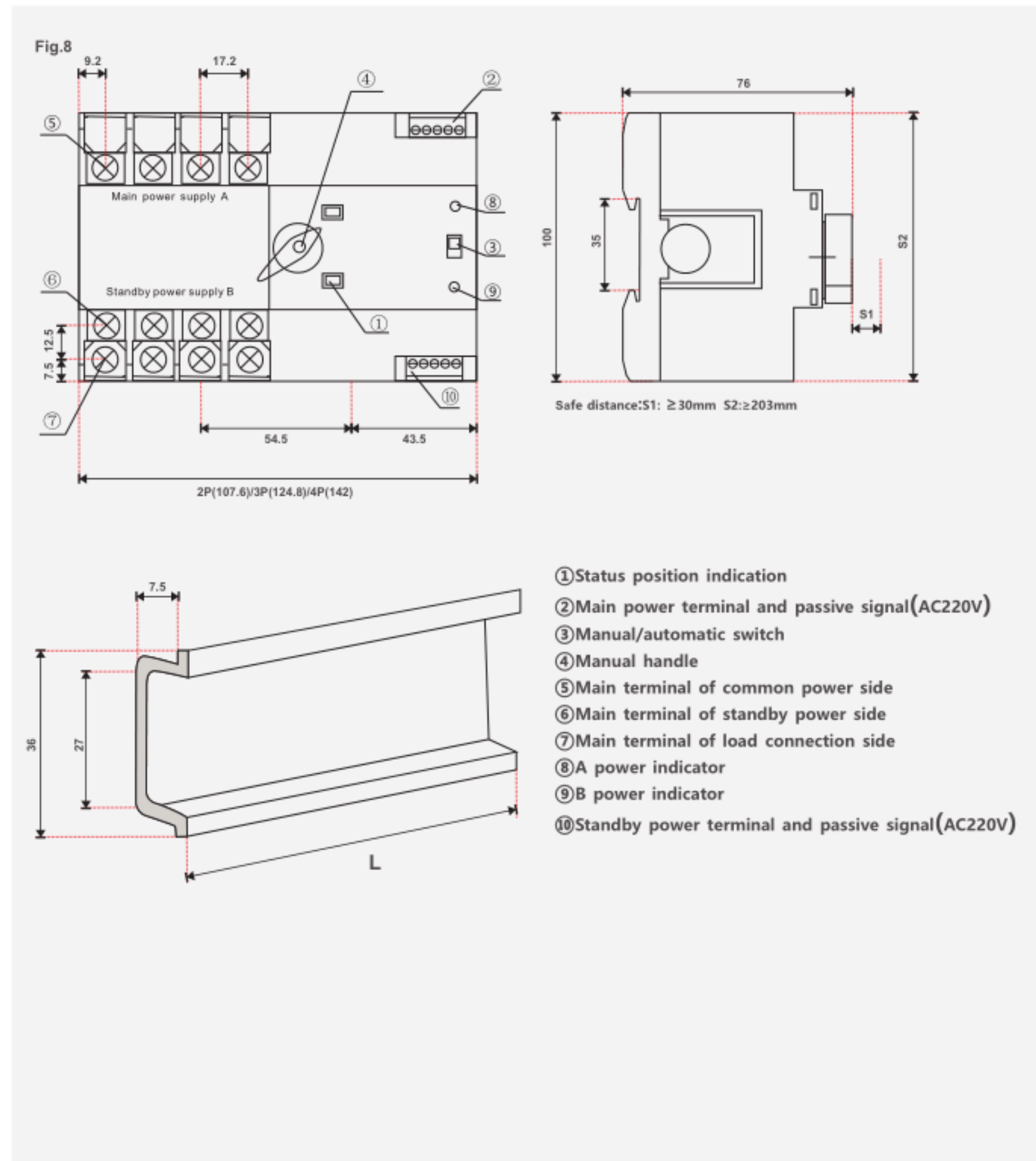
Fig.7





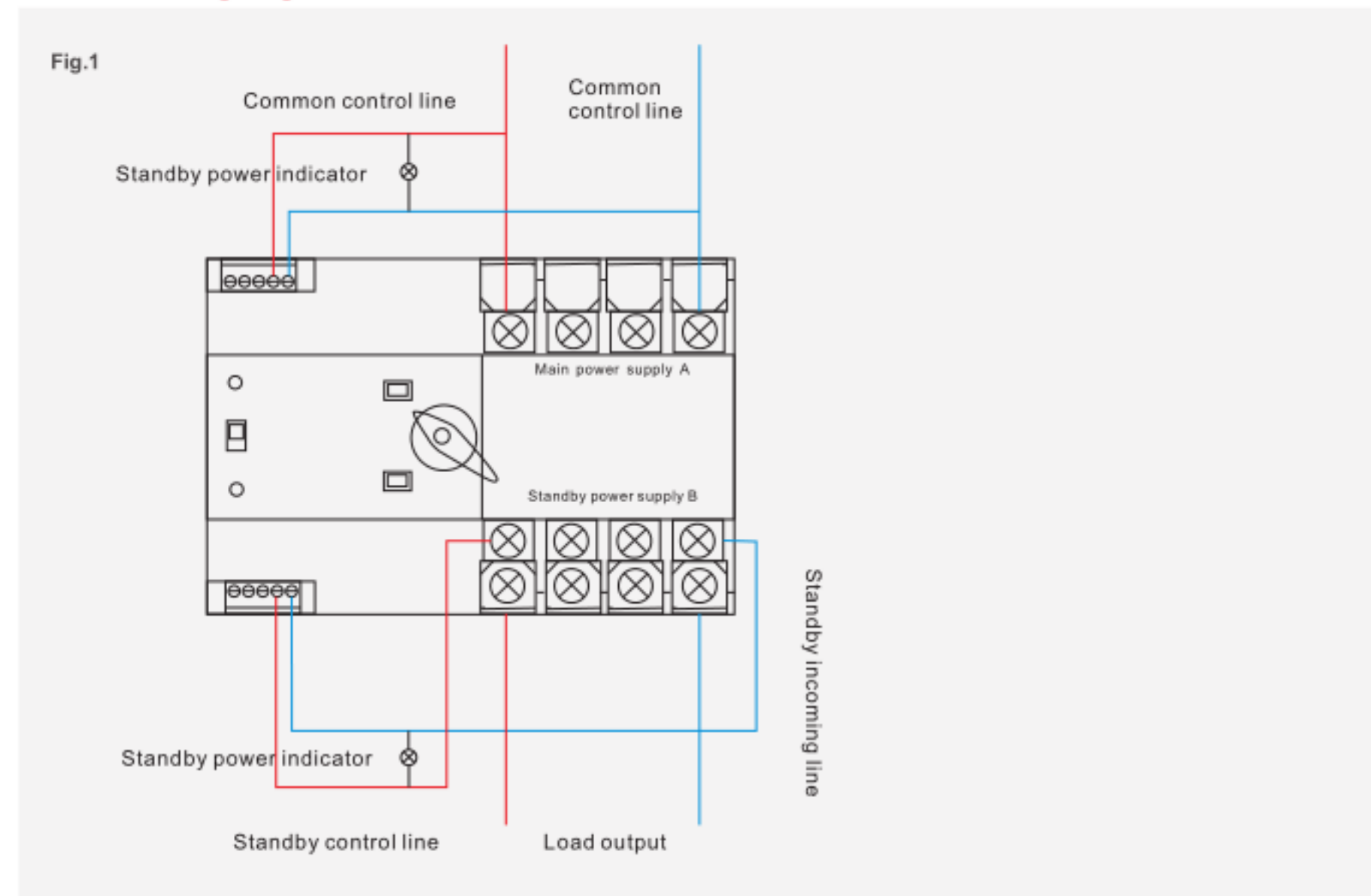
**YCQ4E/YCQ4R PC type Automatic Transfer Switch**

Overall and installation dimension of 100E



**YCQ4E/YCQ4R PC type Automatic Transfer Switch**

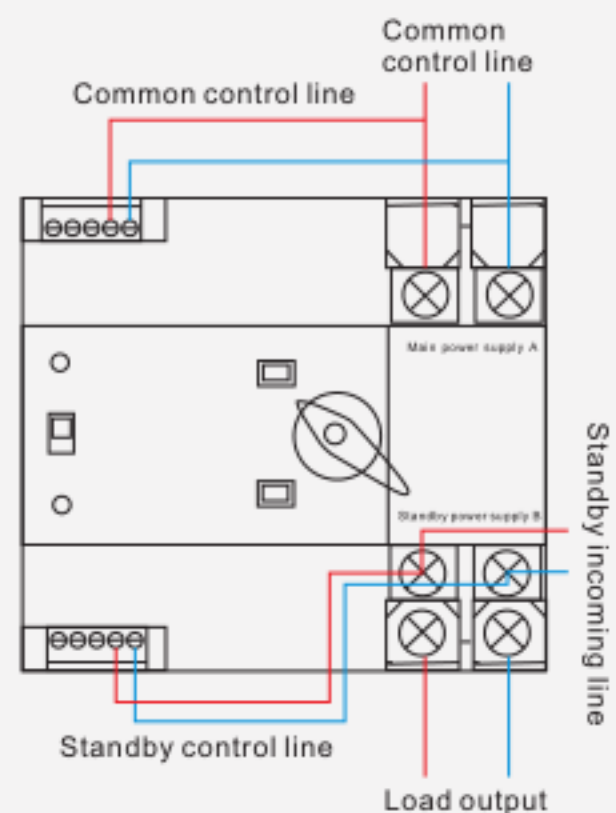
Controller wiring diagram of 100R



**YCQ4E/YCQ4R PC type Automatic Transfer Switch**

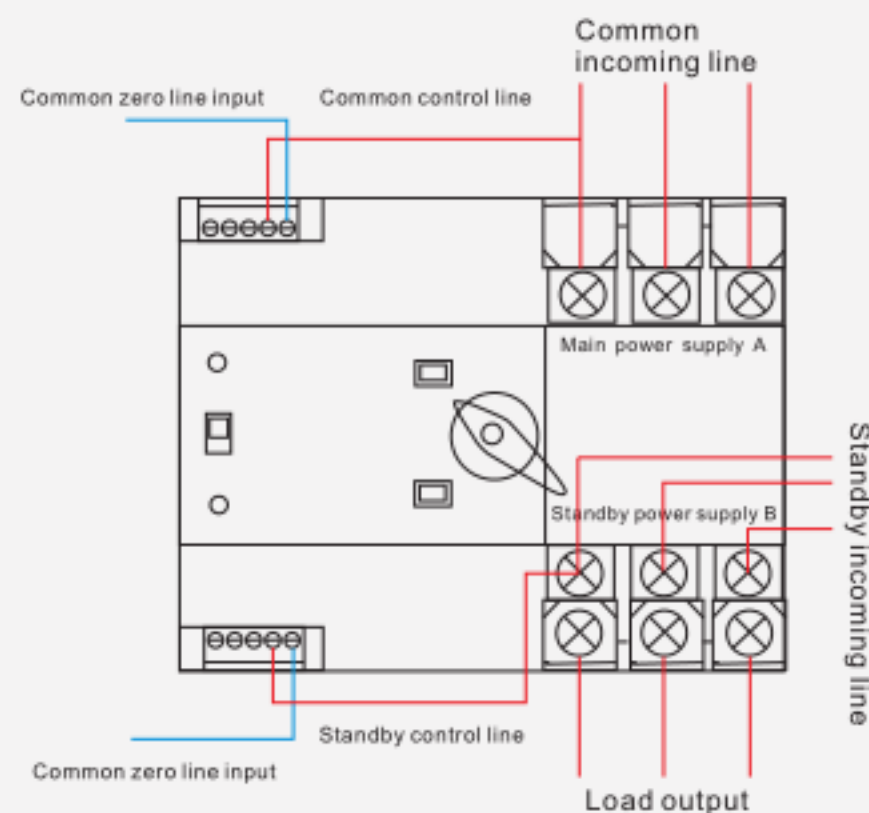
**100/2P wiring diagram of 100R**

Fig.2



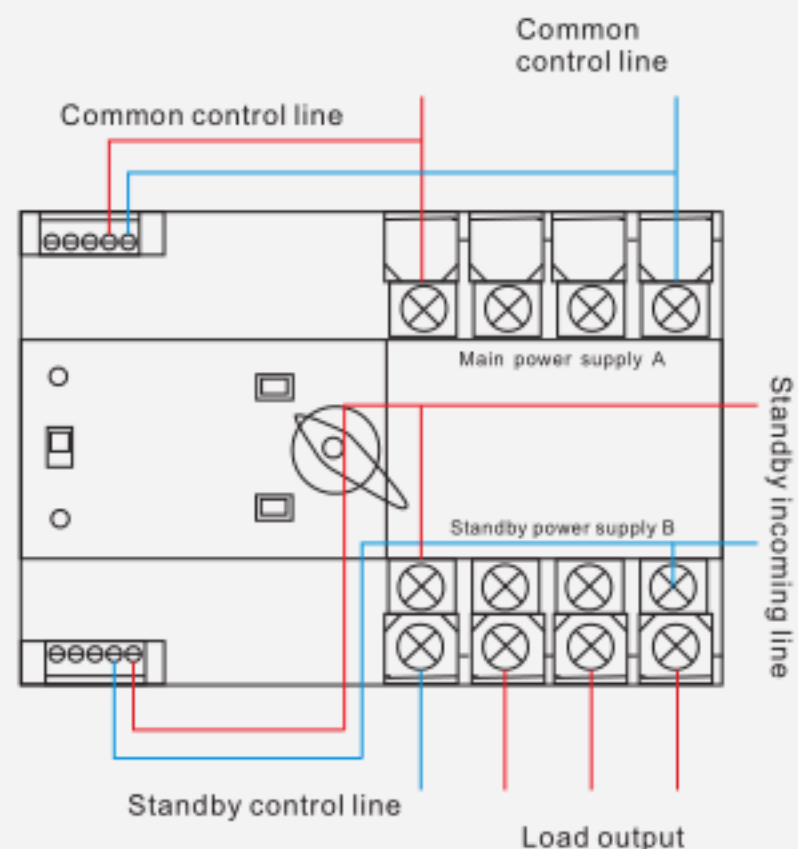
**100/3P wiring diagram of 100R**

Fig.3



**100/4P wiring diagram of 100R**

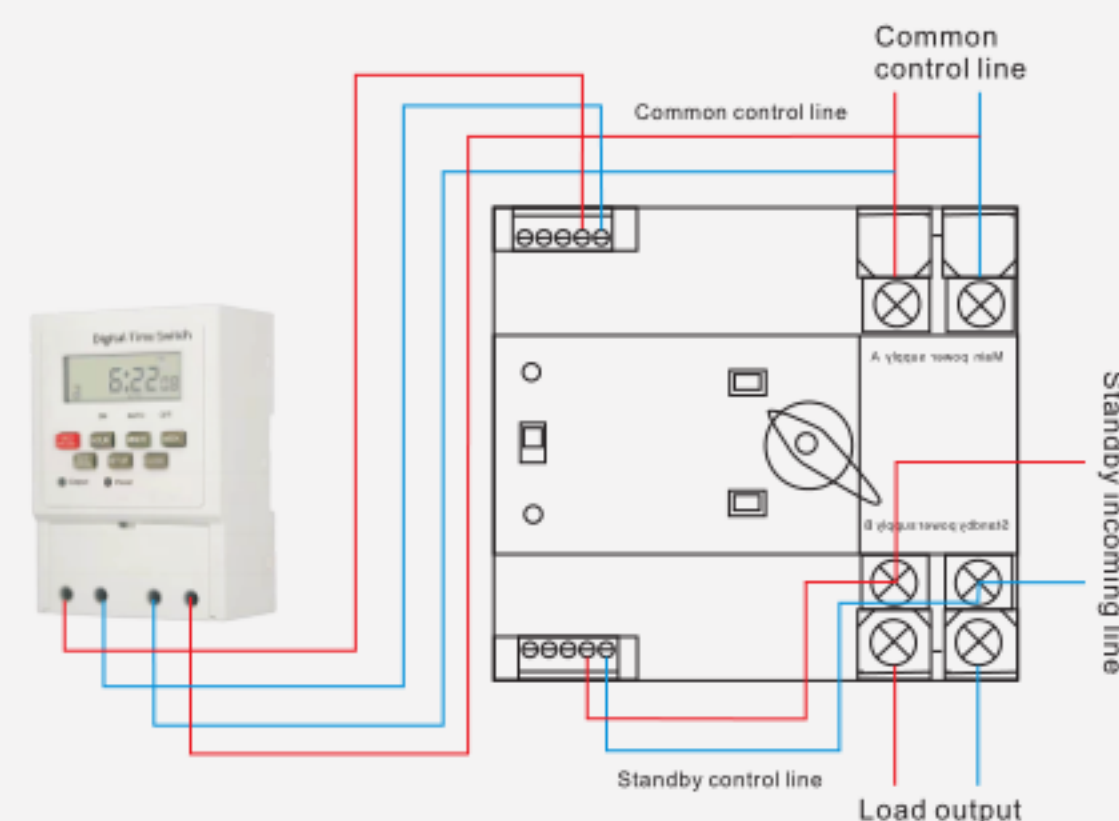
Fig.4



**YCQ4E/YCQ4R PC type Automatic Transfer Switch**

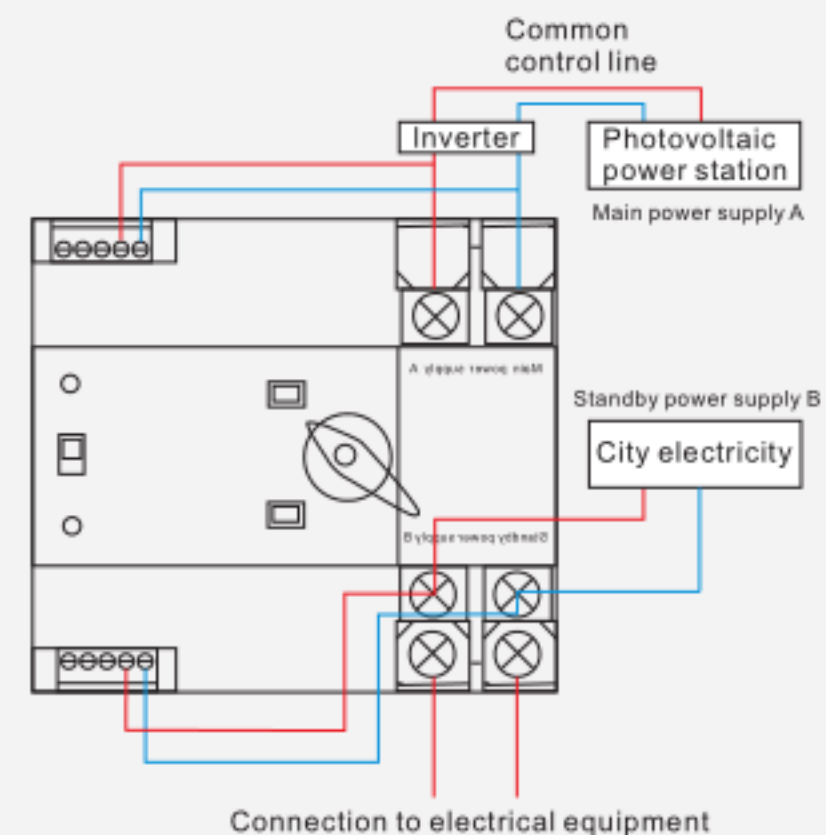
**Timing switching connection mode of 100R**

Fig.5



**Special connection mode of photovoltaic inverter of 100R**

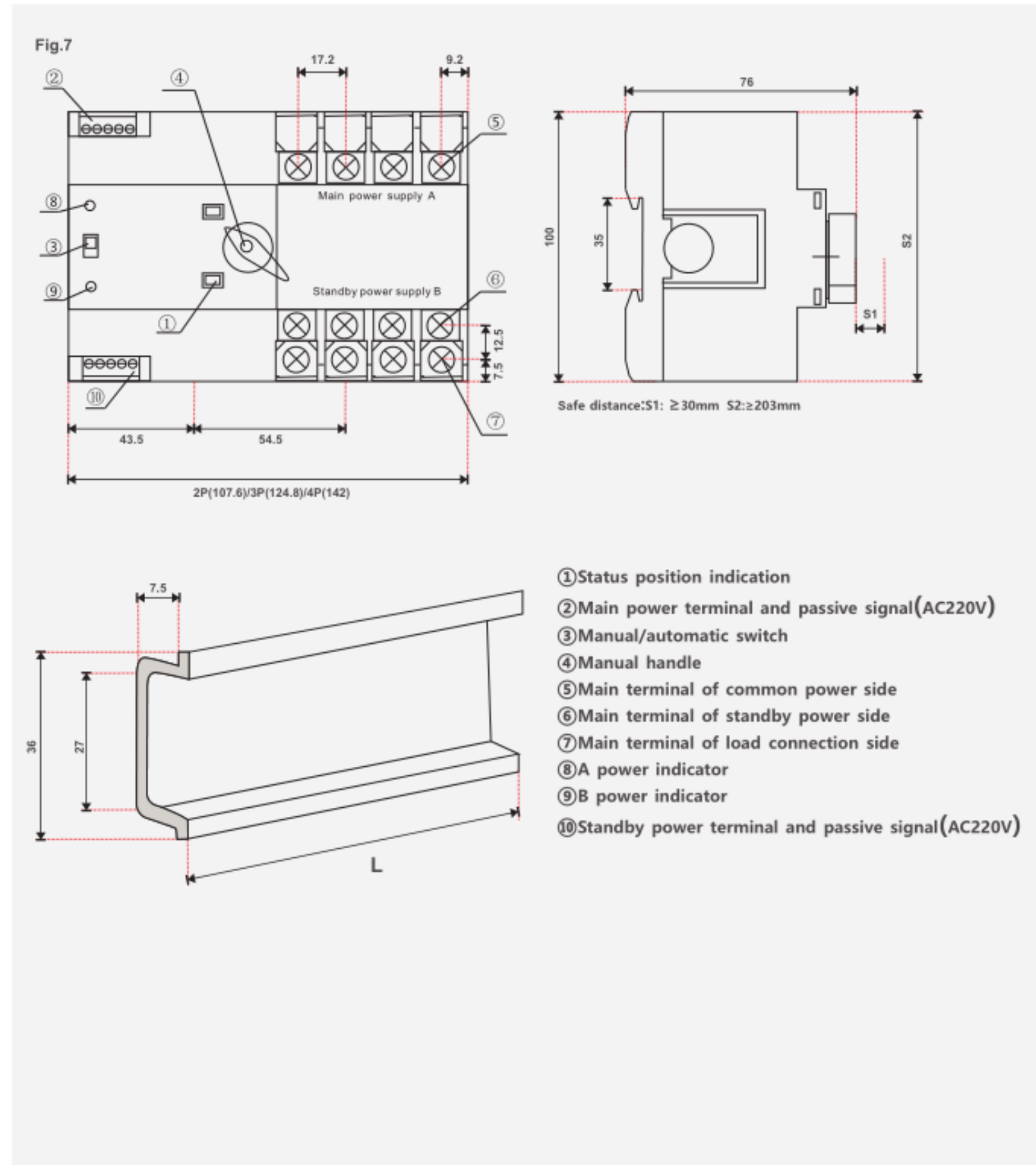
Fig.6





**YCQ4E/YCQ4R PC type Automatic Transfer Switch**

Overall and installation dimension of 100R



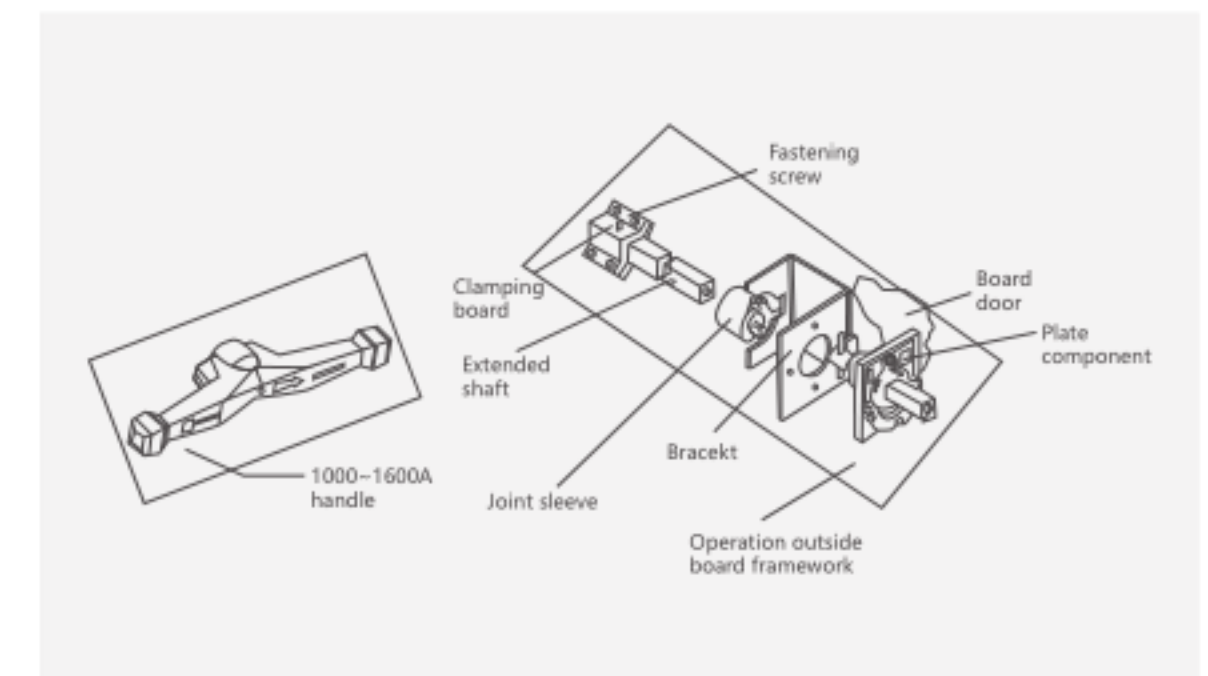
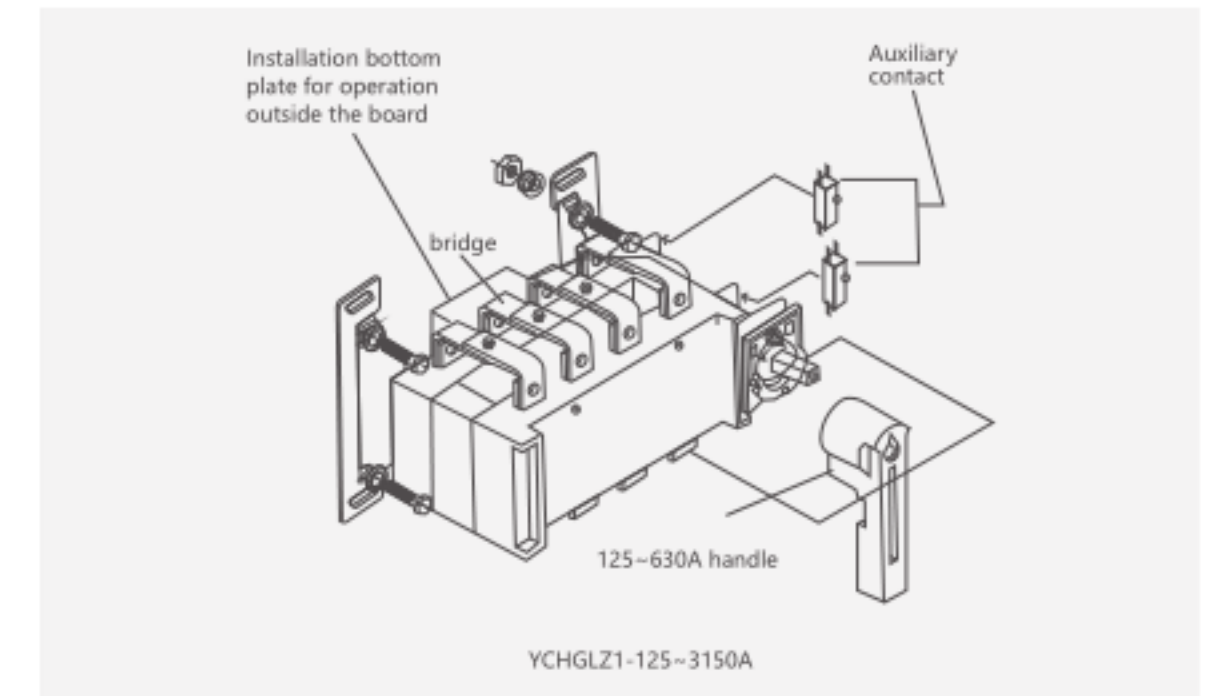
**YCHGLZ1-125~3150A Changeover Switch**

General



- 1, YCHGLZ1-125-3150A is suitable for switching two low-voltage circuits or transforming and safely isolating two load devices
- 2, Operating mode:  
 Direct operate: handle is installed on the switch  
 Operation outside the cabinet: handle is installed outside of distribution cabinet door
- 3, 3P,4P(3P+breakable neutral pole)
- 4, It can be used for outside-cabinet operation with long axis
- 5, Two auxiliary contacts can be installed if needed
- 6, Electrical performance and mechanical performance is as same as YCHGL-125-3150A correspondingly
- 7, Provide bridge type connecting conductors connected with output terminal or input terminal of switch  
 PS: when using bridge type connection, please instruct if it applies to the line end or the outlet end

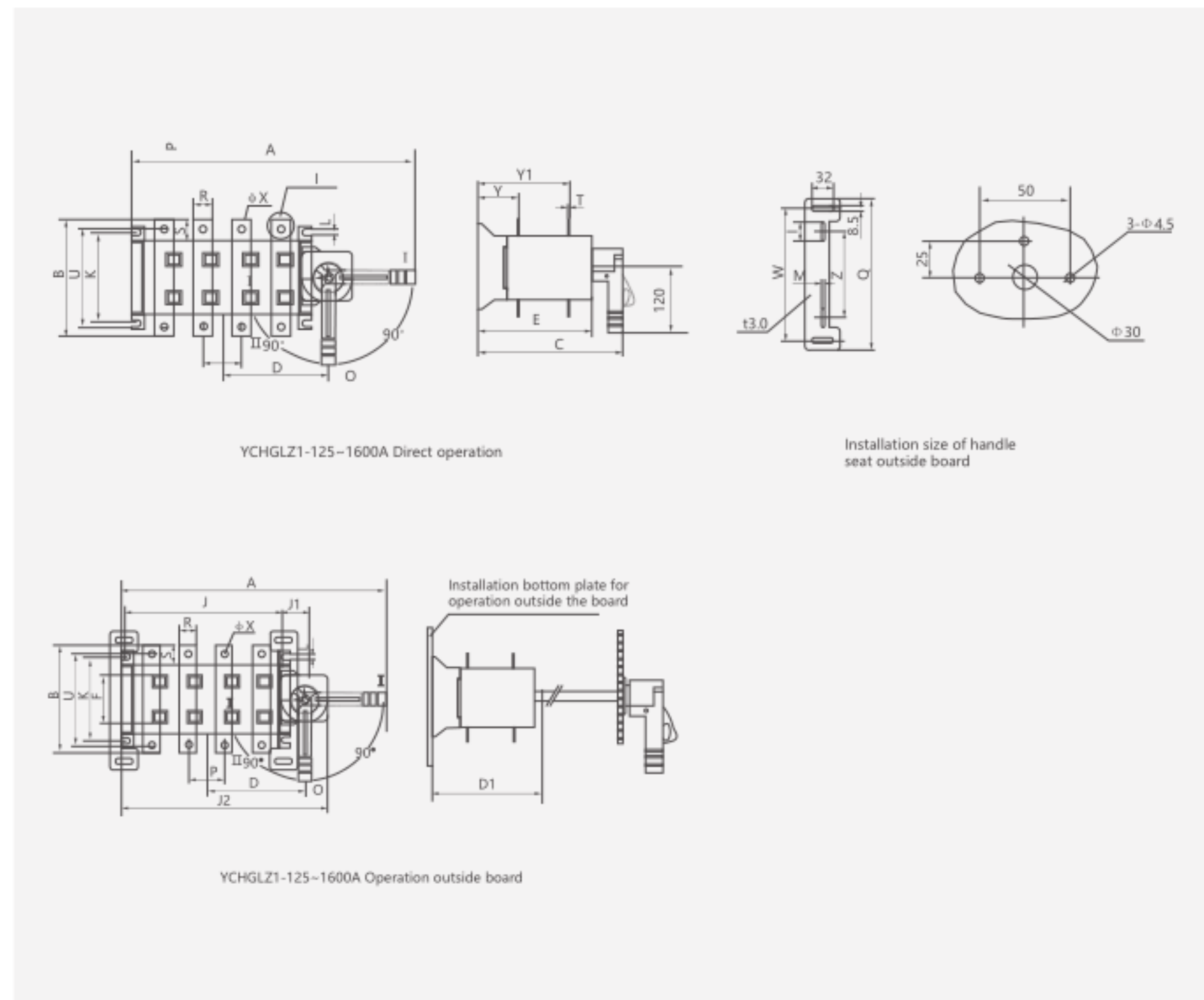
B



## Distribution Apparatus

# YCHGLZ1-125~3150A Changeover Switch

### YCHGLZ1-125~630A Outline and installation dimensions

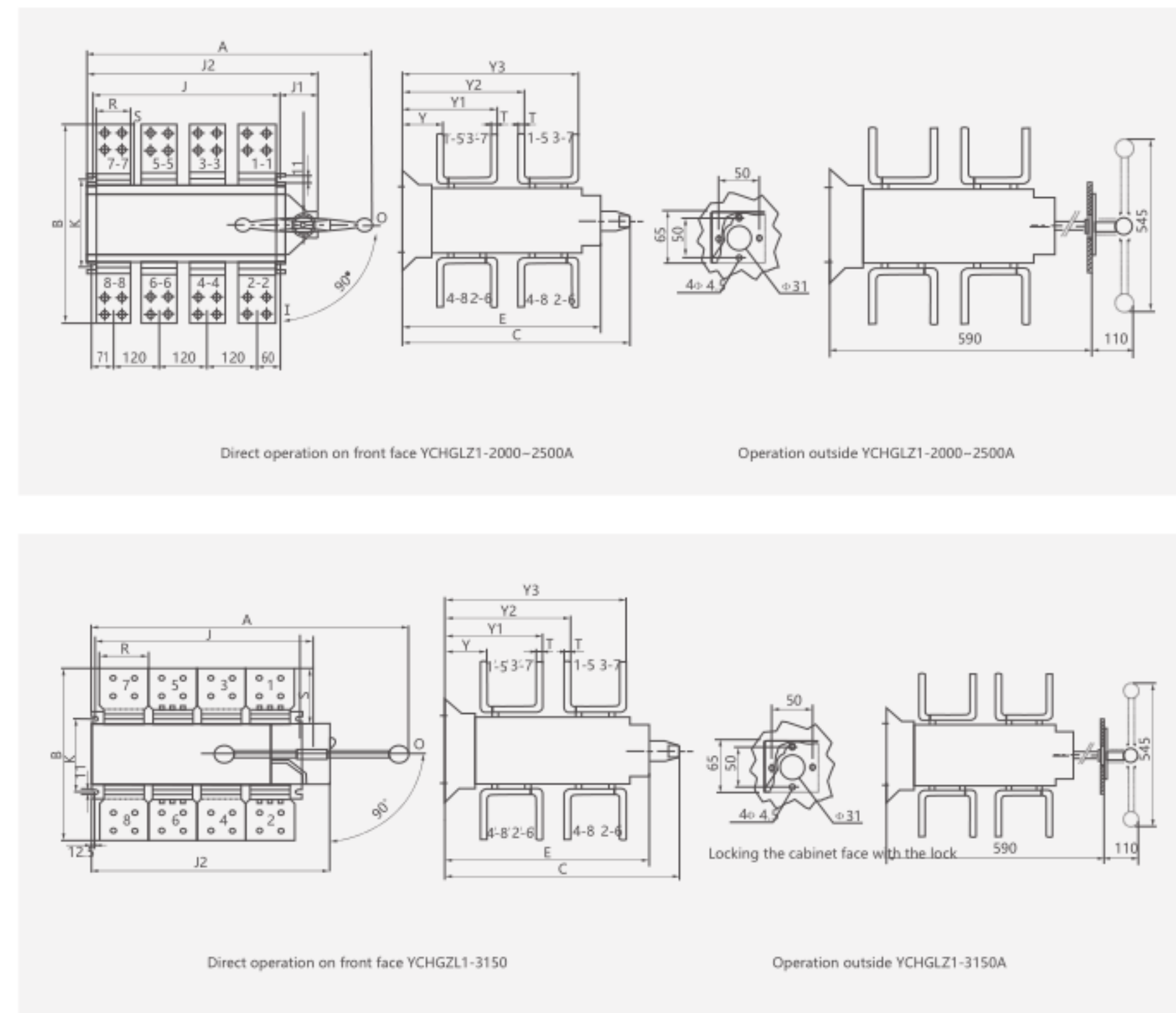


Specification	External Dimension and Installation Dimension																			
	A	B	C	D	D1	E	J	J1	J2	K	L	P	R	S	T	U	ΦX	Y	Y1	F
YCHGLZ1-125A-160A/3	300	135	228	89	190	160	120	37	195	95	7	36	20	25	3.5	115	9	55.5	126.5	49
YCHGLZ1-125A-160A/4	330	135	228	104	190	160	150	37	225	95	7	36	20	25	3.5	115	9	55.5	127.5	49
YCHGLZ1-200A-250A/3	340	165	250	110	215	180	160	37	235	115	9	50	25	28	3.5	140	10.5	63	145	76
YCHGLZ1-200A-250A/4	390	165	250	135	218	180	210	37	285	115	9	50	25	28	3.5	140	10.5	63	147	76
YCHGLZ1-315A-400A/3	410	234	340	150	278	241	211	44.5	198	175	10	65	32	37	5	205	10.5	83	193	94
YCHGLZ1-315A-400A/4	470	234	340	180	278	241	270	44.5	358	175	10	65	32	37	5	205	10.5	83	193	94
YCHGLZ1-500A-630A/3	410	250	340	150	278	241	211	44.5	298	175	10	65	40	45	6	215	12.5	83.5	193.5	94
YCHGLZ1-500A-630A/4	470	250	340	180	278	241	270	44.5	358	175	10	65	40	45	6	215	12.5	83.5	193.5	94

## Distribution Apparatus

# YCHGLZ1-125~3150A Changeover Switch

### YCHGLZ1-1000~1600A Outline and installation dimensions

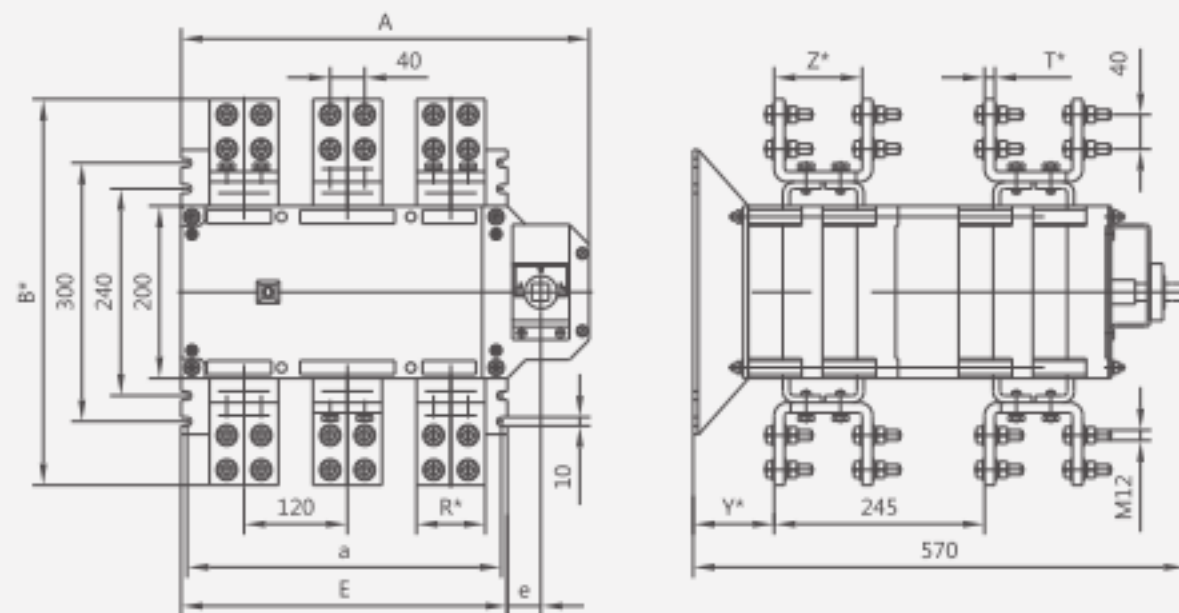
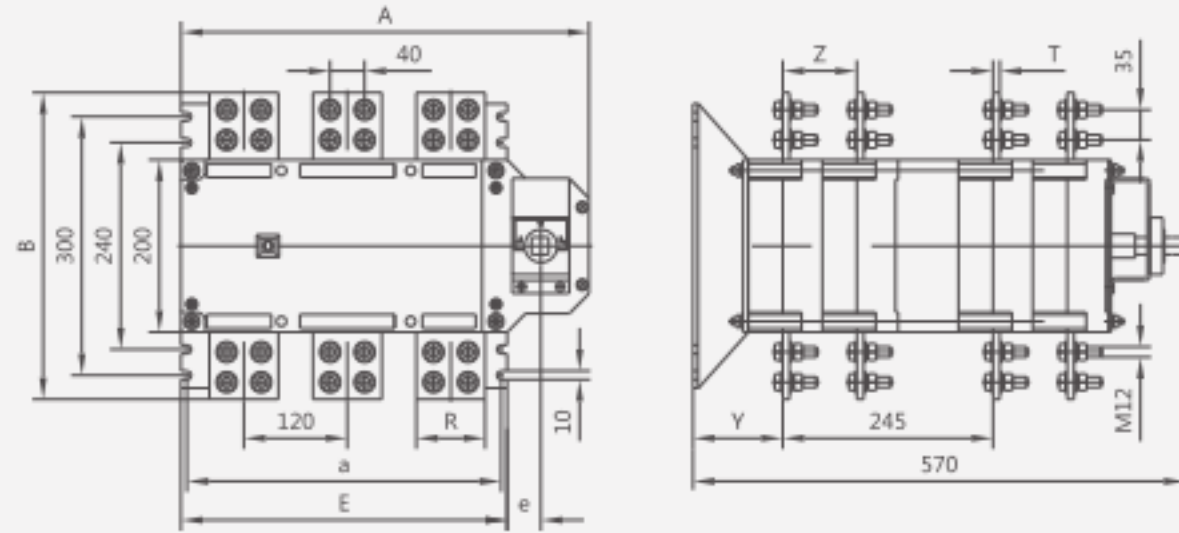


Specification	External Dimension and Installation Dimension																		
	A	B	C	E	J	J1	J2	K	P	R	S	T	ΦX	Y	Y1	Y2	Y3		
YCHGLZ1-1000A/3	590	328	390	300	354	53	450	220	120	60	64	8	12.5	110	259				
YCHGLZ1-1000A/4	704	328	390	300	467	53	565	220	120	60	64	8	12.5	110	259				
YCHGLZ1-1250A/3	590	336	390	300	354	53	450	220	120	80	68	8	12.5	110	259				
YCHGLZ1-1250A/4	704	336	390	300	467	53	565	220	120	80	68	8	12.5	110	259				
YCHGLZ1-1600A/3	590	336	390	300	354	53	450	220	120	80	68	10	12.5	111	260				
YCHGLZ1-1600A/4	704	336	390	300	467	53	565	220	120	80	68	10	12.5	111	260				



## YCHGLZ1-125~3150A Changeover Switch

### YCHGLZ1-2000~3150A Outline and installation dimensions



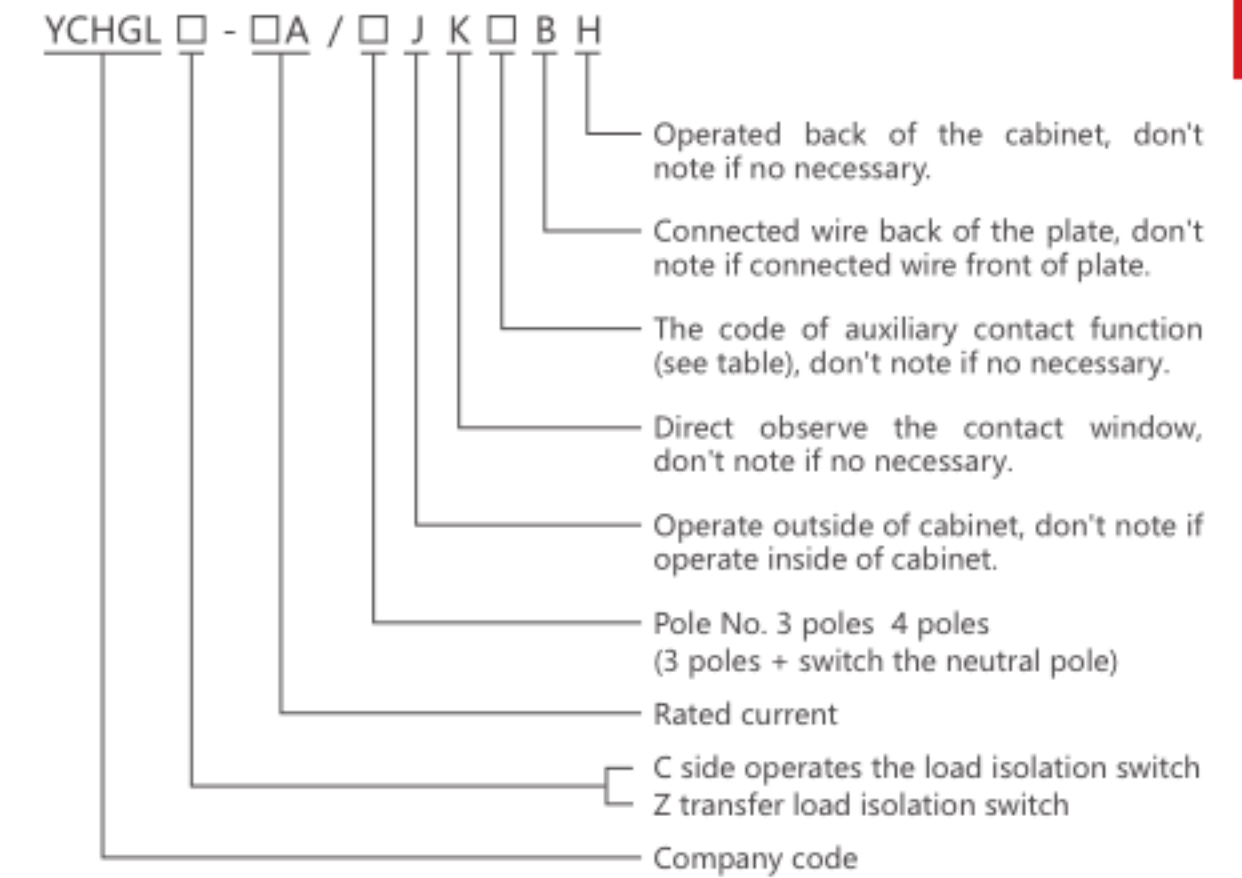
Specification	External Dimension and Installation Dimension								
	A	B/B*	E	a	e	R/R*	T/T*	Y/Y*	Z/Z*
YCHGLZ1-2000A/3	473	356/502	378	350	40	80/80	8/10	98/85	88/115
YCHGLZ1-2000A/4	593	356/502	498	470	40	80/80	8/10	98/85	88/115
YCHGLZ1-2500A/3	473	356/502	378	350	40	80/80	8/12	98/85	88/115
YCHGLZ1-2500A/4	593	356/502	498	470	40	80/80	8/12	98/85	88/115
YCHGLZ1-3150A/3	473	356/502	378	350	40	80/100	10/15	99/83	88/120
YCHGLZ1-3150A/4	593	356/502	498	470	40	80/100	10/15	99/83	88/120

## YCHGL-63~3150A Isolation Switch

### Application

AC 50Hz, rated voltage 660V, DC rated voltage 440V, rated current 3150A. It is used for making and breaking circuit not frequently.

### Model and meaning



One NO and one NC	11	NO+NC
Two NO and Two NC	22	2NO+2NC

Example for lecto type: Rated current 630A, include neutral pole transferring load isolation switch, YCHGLZ-630A/4J for operating outside of cabinet

### Service environment

1. YCHGL load-isolation switch can operate under the following conditions
  2. Altitude not more than 2000m;
  3. The range of ambient temperature is from -5°C to 40°C;
  4. Relative humidity not more than 95%;
  5. The environment without any explosive medium.
  6. The environment without any rain or snow attacking.
- If the product is expected to be used in the environment where temperature is over +40°C or below -5°C, user's shall tell it to the manufacturer.

## Distribution Apparatus

### YCHGL-63~3150A Isolation Switch

#### Principal technical parameter

Table 1

Item			Data							
Conventional thermal current (A)			63A		100A		160A		250A	
Rated current I <sub>n</sub> (A)			40	63	80	100	125	160	200	250
Rated insulation voltage U <sub>i</sub> (V) (installation type IV)			690	690	690	690	690	690	690	690
Dielectric strength (V)			5000	5000	5000	5000	5000	5000	5000	5000
Rated surge-resistant voltage U <sub>imp</sub> kV (installed category IV)			6	6	6	6	6	6	6	6
Rated working current I <sub>e</sub> (A)	380V	AC-21B	40	63	80	80	125	160	200	250
		AC-22B	40	63	80	80	125	160	200	250
		AC-23B	40	50	80	80	125	160	200	250
	660V	AC-21B	40	50	80	80	125	160	200	250
		AC-22B	32	32	50	50	125	160	160	160
		AC-23B	25	25	40	40	80	80	100	125
Motor power P (kW)	380V	18.5	25	40	40	63	80	100	132	
	660V	22	22	33	33	75	75	90	110	
Rated short-time withstand current I <sub>cw</sub> (kA Rms) 0.1s/1s			2	2	2	2	8	8	12	12
Rated breaking capability I <sub>cn</sub> (A Rms) AC23 380V			320	504	640	800	1000	1000	1600	1600
Rated making capability I <sub>cm</sub> (A Rms) AC23 380V			400	630	800	1000	1250	1600	2000	2500
Rated short-current making capability I <sub>cm</sub> (kA peak value)			2.84	2.84	2.84	2.84	13.6	13.6	17	17
Mechanical durability 380V			1700	1700	1700	1700	1400	1400	1400	1400
Electrical durability 380V			300	300	300	300	200	200	200	200
Operation moment (Nm)			1.2	1.2	1.2	1.2	6.5	6.5	10	10

## Distribution Apparatus

### YCHGL-63~3150A Isolation Switch

#### Principal technical parameter

Table 2

Item			Data									
Conventional thermal current (A)			630A			1600A			3150A			
Rated current I <sub>n</sub> (A)			315	400	500	630	1000	1250	1600	2000	2500	3150
Rated insulation voltage U <sub>i</sub> (V) (installation type IV)			1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Dielectric strength (V)			8000	8000	8000	8000	10000	10000	10000	10000	10000	10000
Rated surge-resistant voltage U <sub>imp</sub> kV (installed category IV)			6	6	6	6	6	6	6	6	6	6
Rated working current I <sub>e</sub> (A)	380V	AC-21B	315	400	500	630	1000	1250	1600	2000	2500	3150
		AC-22B	315	400	500	630	1000	1250	1600	2000	2500	3150
		AC-23B	315	400	500	630						
	660V	AC-21B	315	400	400	500	1000	1000	1600	2000	2500	2500
		AC-22B	315	315	315	315	800	800	800	1000	1250	1600
		AC-23B										
Motor power P (kW)	380V	160	220	280	315	560	560	560	710	710	710	
	660V	185	185	185	185	475	475	475	750	750	750	
Rated short-time withstand current I <sub>cw</sub> (kA Rms) 0.1s/1s			25	25	25	25	50	50	50	50	50	50
Rated breaking capability I <sub>cn</sub> (A Rms) AC23 380V			2520	3200	4000	5040	3000	3750	4800	6000	7500	9450
Rated making capability I <sub>cm</sub> (A Rms) AC23 380V			3150	4000	5000	6300	3000	3750	4800	6000	7500	9450
Rated short-current making capability I <sub>cm</sub> (kA peak value)			40	40	40	40	70	70	70	105	105	105
Mechanical durability 380V			800	800	800	800	500	500	500	300	300	300
Electrical durability 380V			200	200	200	200	100	100	100	100	100	100
Operation moment (Nm)			14.5	14.5	14.5	14.5	37	37	60	60	60	60



## Distribution Apparatus

### YCHGL-63~3150A Isolation Switch

#### Conformed standard

International standard

IEC60947-1(1998) 《Low-voltage switchgear and controlgear, part one: General Rules》.

IEC60947-3(1999) 《Low -voltage switchgear and controlgear, switches, disconnectors, switch-disconnectors and fuse-combination units》.

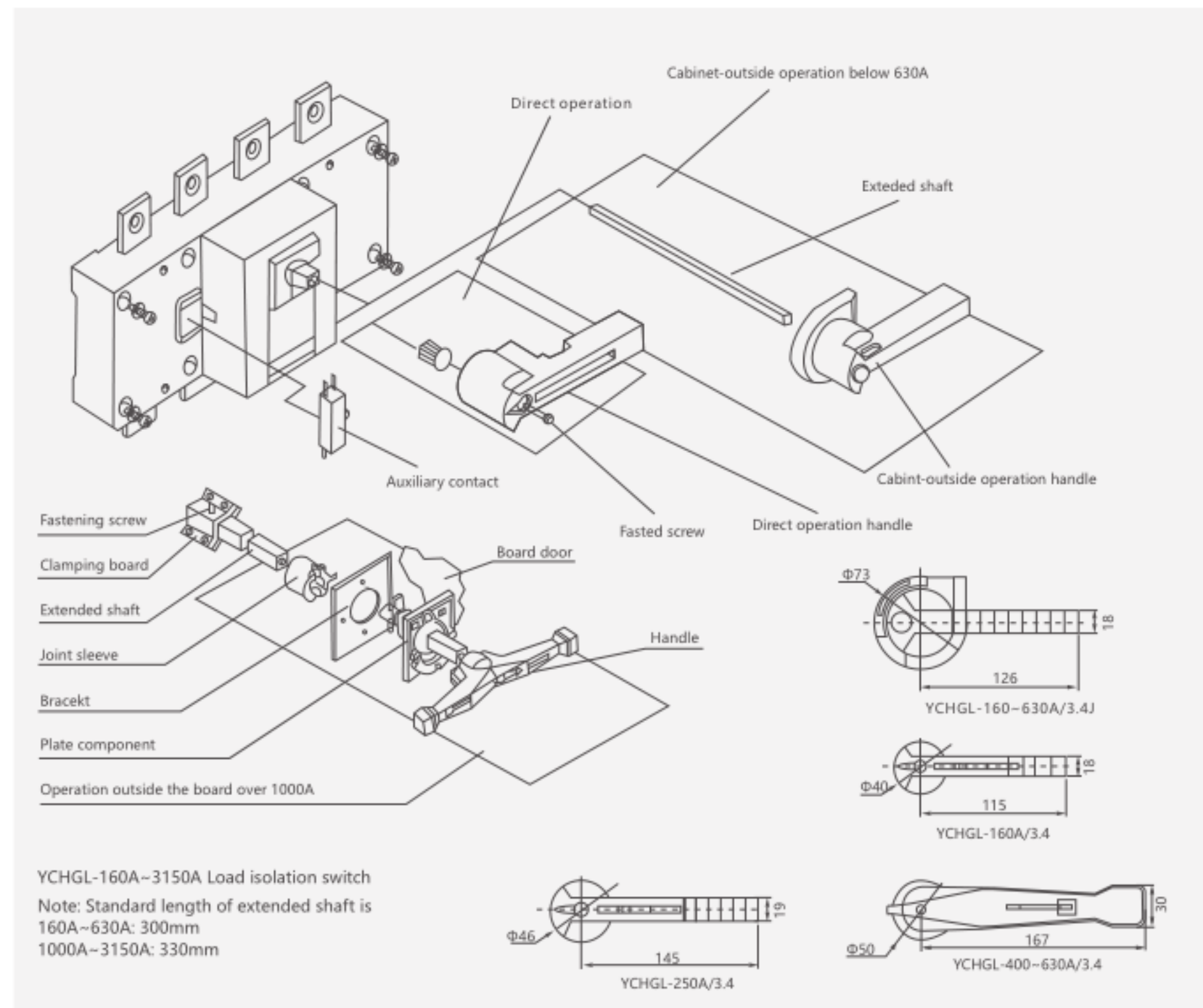
#### Load isolation switch of YCHGL-63~3150A

7 specifications of HGL load isolation switch from 63A to 3150A: Basic model of modularized design, 3 poles, 4 poles (3 poles+on and off neutral pole). It is suitable for the making and breaking operation of electric circuit or electric isolation. Switches over 1000A are only suitable for electric isolation.

Mark window is set in the front side to indicate the on and off state of the contact.

#### Operation mode

1. Direct operation: The handle is installed in the middle of the switch.
2. Operation outside the board: The handle is installed outside the door of distributing board.

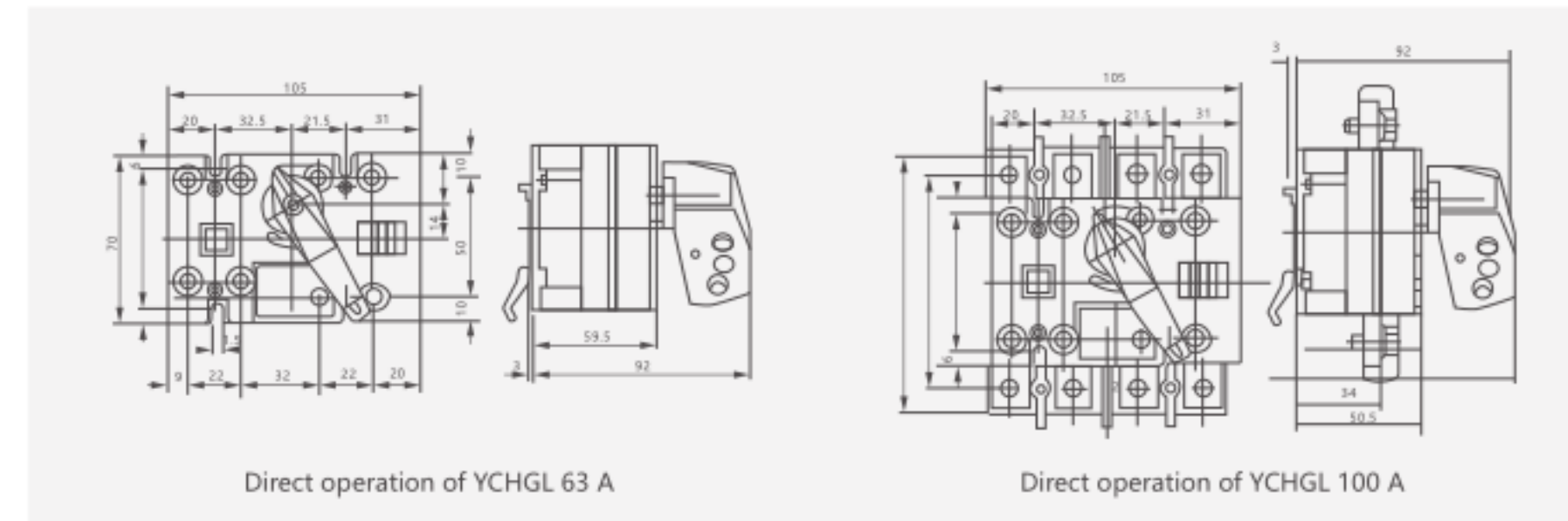


## Distribution Apparatus

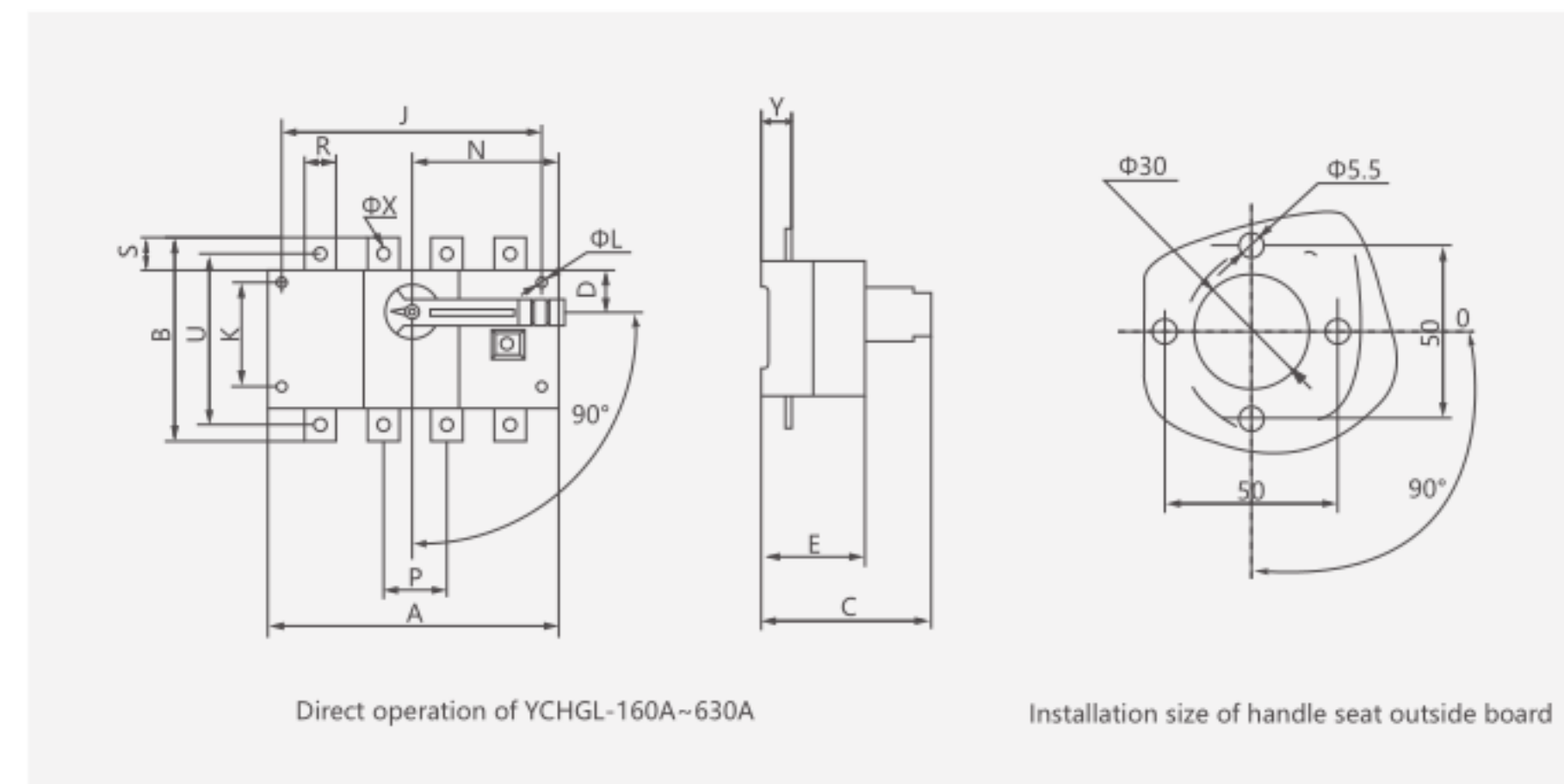
### YCHGL-63~3150A Isolation Switch

#### Overall& Installation Dimension

Load isolation switch side operation load isolation switch of YCHGL-63A~100A



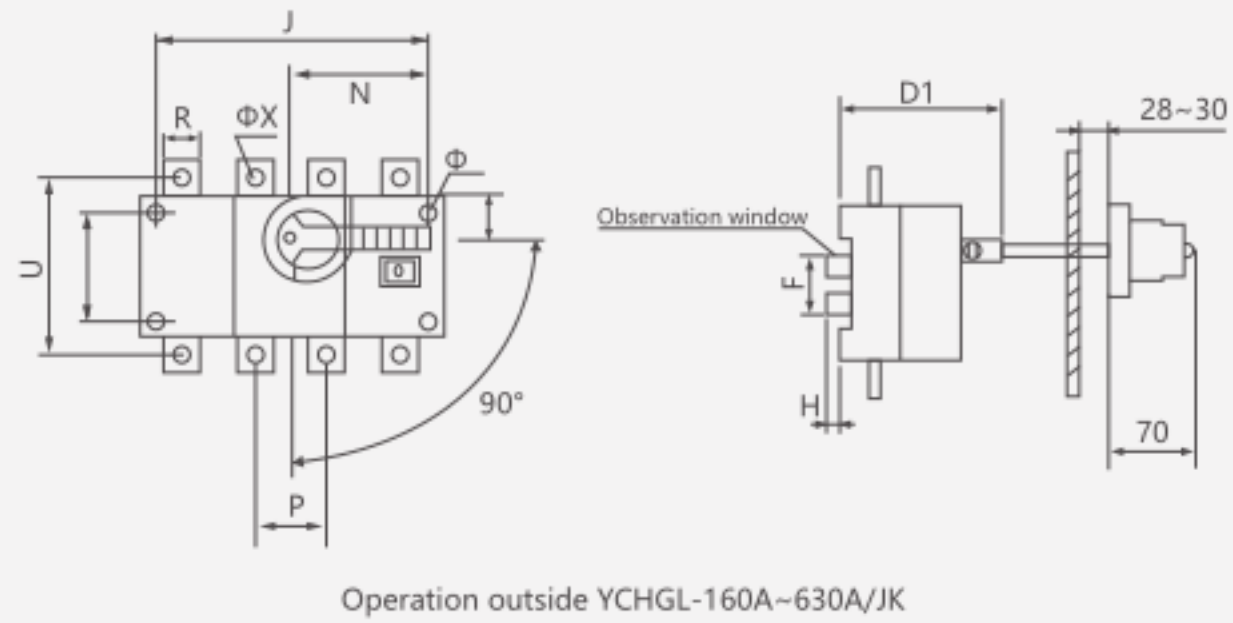
External dimension and installation dimension of YCHGL-160A~630A load isolation switch



Distribution Apparatus

**YCHGL-63~3150A Isolation Switch**

Overall& Installation Dimension



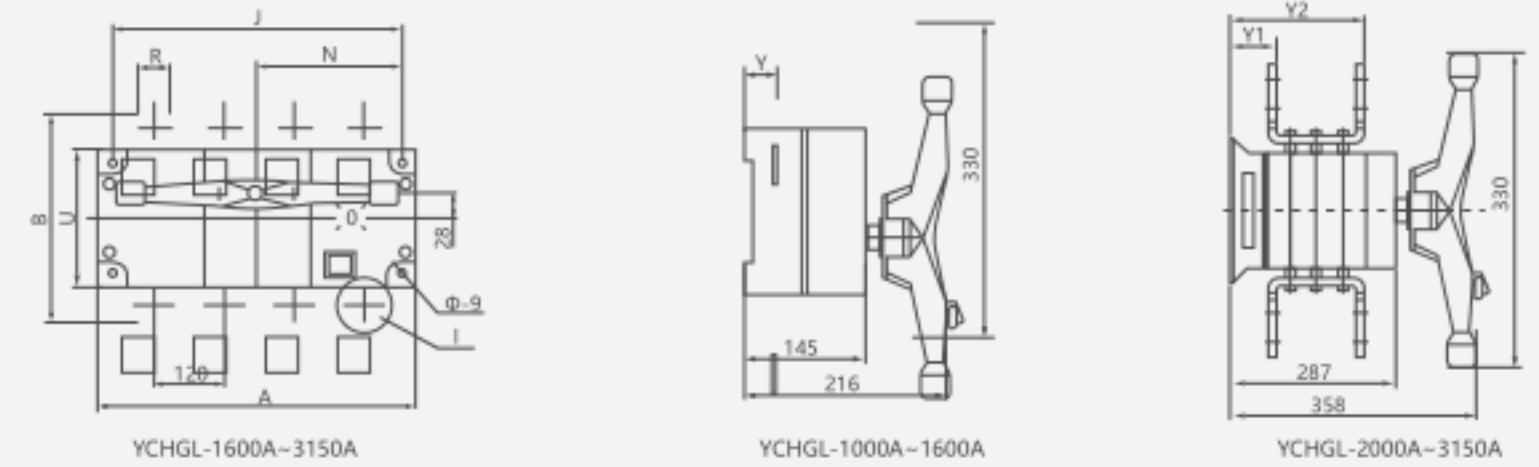
In	A	B	C	D	D1	E	ΦL	J	K	N	P	R	S	U	ΦX	Y	F	H
125A/3	140	135	121	27	93	71	5.5	120	65	75	36	20	25	115	9	24	50	10
125A/4	170	135	121	27	93	71	5.5	150	65	75	36	20	25	115	9	24	50	10
160A/3	140	135	121	27	93	71	5.5	120	65	75	36	20	25	115	9	24	50	10
160A/4	170	135	121	27	93	71	5.5	150	65	75	36	20	25	115	9	24	50	10
200A/3	180	170	144	35	104	84	5.5	160	90	105	50	25	30	140	11	25	79	15
200A/4	230	170	144	35	104	84	5.5	210	90	105	50	25	30	140	11	25	79	15
250A/3	180	170	144	35	104	84	5.5	160	90	105	50	25	30	140	11	25	79	15
250A/4	230	170	144	35	104	84	5.5	210	90	105	50	25	30	140	11	25	79	15
315A/3	230	240	179	50	137	115	7	210	140	135	65	32	40	206	11	37	95	20
315A/4	290	240	179	50	137	115	7	270	140	135	65	32	40	206	11	37	95	20
400A/3	230	240	179	50	137	115	7	210	140	135	65	32	40	206	11	37	95	20
400A/4	290	240	179	50	137	115	7	270	140	135	65	32	40	206	11	37	95	20
500A/3	230	260	179	50	137	115	7	210	140	135	65	40	50	220	13	37.5	95	20
500A/4	290	260	179	50	137	115	7	270	140	135	65	40	50	220	13	37.5	95	20
630A/3	230	260	179	50	137	115	7	210	140	135	65	40	50	220	13	37.5	95	20
630A/4	290	260	179	50	137	115	7	270	140	135	65	40	50	220	13	37.5	95	20

Distribution Apparatus

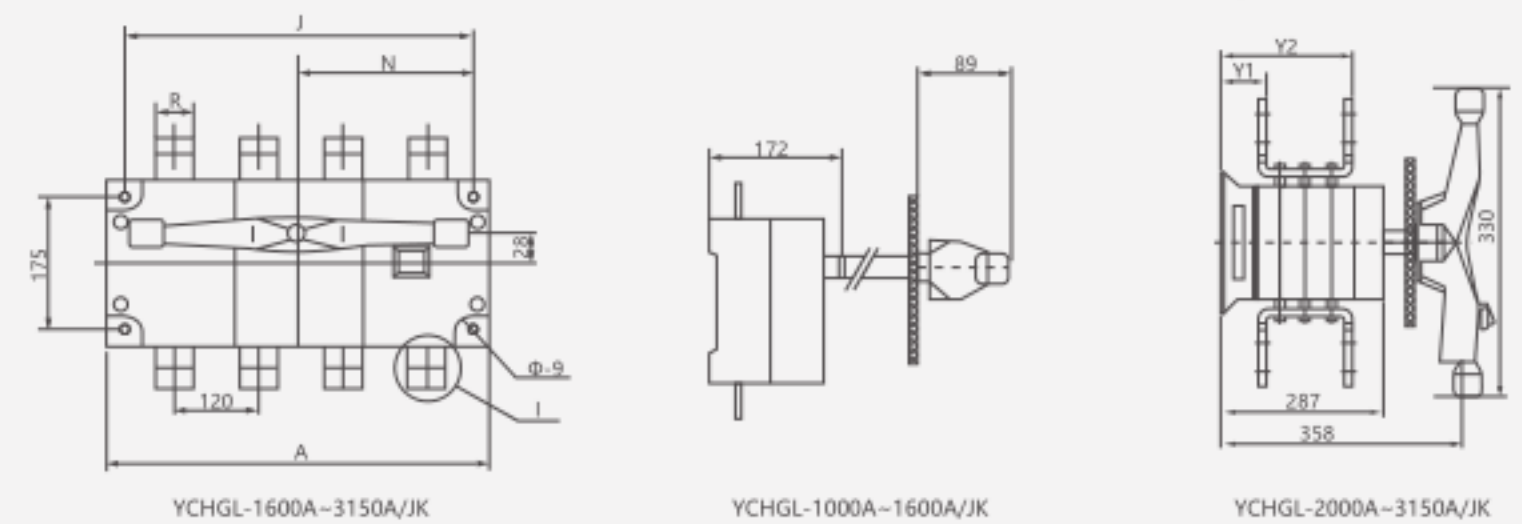
**YCHGL-63~3150A Isolation Switch**

Load isolation switch side operation load isolation switch of YCHGL-1000A~1600A

Direct operation



Operation outside



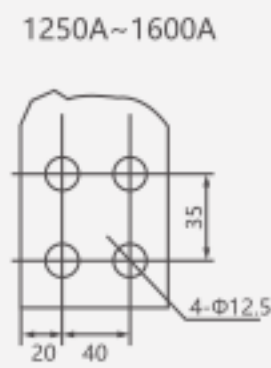
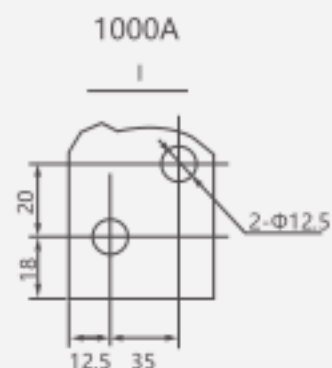
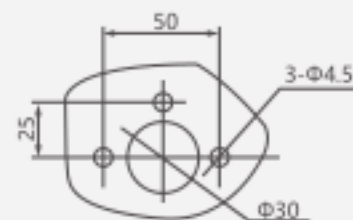
Direct operation of YCHGL-1600A/JK (operation outside)



**YCHGL-63~3150A Isolation Switch**

**B**

Installation bottom plate for operation outside the board

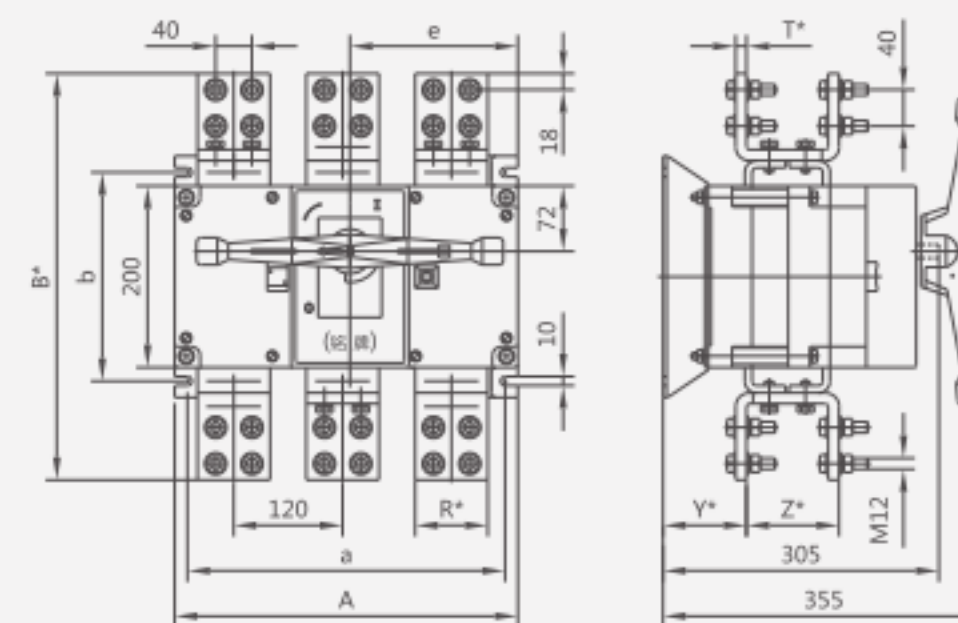
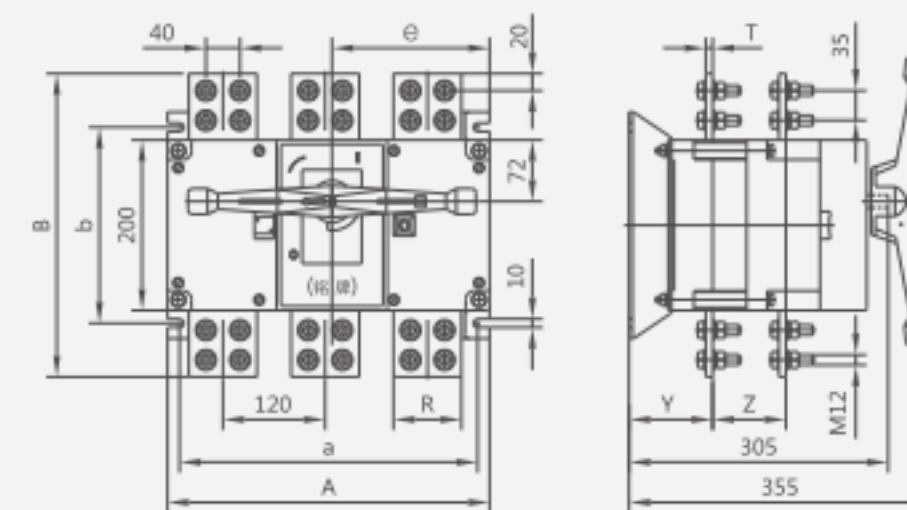


In	A	A1	B	J	N	R	U	Y	Y1	Y2
1000A/3	378	105	310	353	171	60	200	48		
1000A/4	498	105	310	473	231	60	200	48		
1250A/3	378	105	336	353	171	80	200	48		
1250A/4	498	105	336	473	231	80	200	48		
1600A/3	378	105	336	353	171	80	200	49		
1600A/4	498	105	336	473	231	80	200	49		

**YCHGL-63~3150A Isolation Switch**

**B**

Load isolation switch side operation load isolation switch of YCHGL-2000A~3150A

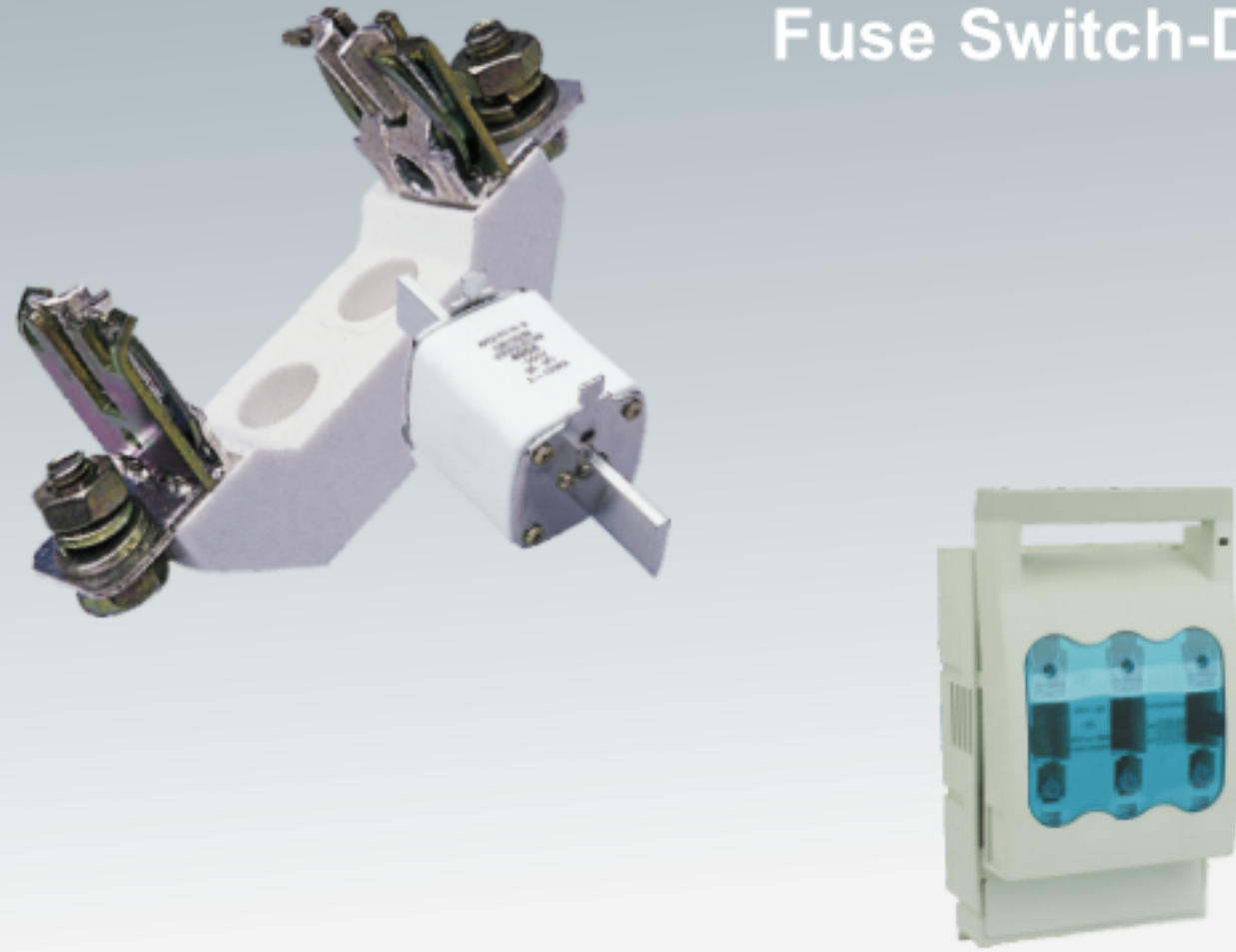


Specification	External Dimension and Installation Dimension								
	A	B/B*	a	b	e	R/R*	T/T*	Y/Y*	Z/Z*
YCHGL-2000A/3	378	356/502	350	230	185	80/80	8/10	98/85	88/115
YCHGL-2000A/4	498	356/502	470	230	249	80/80	8/10	98/85	88/115
YCHGL-2500A/3	378	356/502	350	230	185	80/80	8/12	98/85	88/115
YCHGL-2500A/4	498	356/502	470	230	249	80/80	8/12	98/85	88/115
YCHGL-3150A/3	378	356/502	350	230	185	80/100	10/15	99/83	88/120
YCHGL-3150A/4	498	356/502	470	230	249	80/100	10/15	99/83	88/120

# NT Series Low Voltage Fuse

## YCHR17

### Fuse Switch-Disconnecter



## Fuse

### NT Low Voltage Fuse

#### NT Low Voltage Fuse

##### Application

NT low voltage H.R.C. fuse features light in weight, small in size, low in power loss and high in breaking capacity. This product has been widely used in overload and short circuit protection of electric installation. This product conforms to IEC 60269 standards with all of the rating at the world advanced level.

##### Specifications

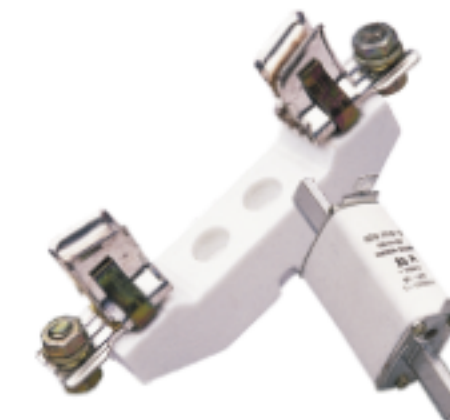
Type	Fuse link				Fuse base		
	Rated current (A)	Rated voltage (V)	Rated power loss (W)	Weight (kg)	Type	Rated current	Weight (kg)
NT00C	2	500,690	0.41	0.15	Sist 101	160	0.2
	4		0.62				
	6		0.81				
	10		1.08				
	16		1.60				
	20		1.81				
	25		2.31				
	32		3.07				
	36		3.17				
	40		4.05				
	50		4.25				
	63		4.70				
	80		5.7				
100	7						
NT00	4	500,600	0.67	0.15	Sist 101	160	0.2
	6		0.89				
	10		1.14				
	16		1.65				
	20		1.94				
	25		2.50				
	32		3.32				
	36		3.56				
	40		4.30				
	50		4.5				
	63		4.6				
	80		6				
	100		7.3				
125	7.6						
160	9.6						
NT0	6	500,600	1.03	0.2	Sist 160	160	0.32
	10		1.42				
	16		2.45				
	20		2.36				
	25		2.7				
	32		3.74				
	35		4.3				
	40		4.7				
	50		5.5				
	63		6.9				
	80		7.6				
	100		8.9				
	125		10.1				
160	15.2						



NT00C



NT00



NT0



**Fuse**  
**NT Low Voltage Fuse**

Specifications

Type	Fuse link				Fuse base		
	Rated current (A)	Rated voltage (V)	Rated power loss (W)	Weight (kg)	Type	Rated current	Weight (kg)
NT1	80	500,600	6.2	0.36	Sist 201	250	0.8
	100		7.5				
	125		10.2				
	160		13				
	200		15.2				
	224	500	16.8				
	250		18.3				
NT2	125	600	9	0.65	Sist 401	400	1.2
	160		11.5				
	200		15				
	224		16.6				
	250		18.4				
	300		21				
	315		19.2				
	355		24.5				
NT3	400	500,600	26	0.85	Sist 601	630	1.5
	315		21.7				
	355		22.7				
	400		26.8				
	425	28.9					
	500	500	32				
630	40.3						
NT4	800	380	62	1.95	Sist 1001	1000	3.45
	1000		75				



NT1



NT2



NT3



NT4

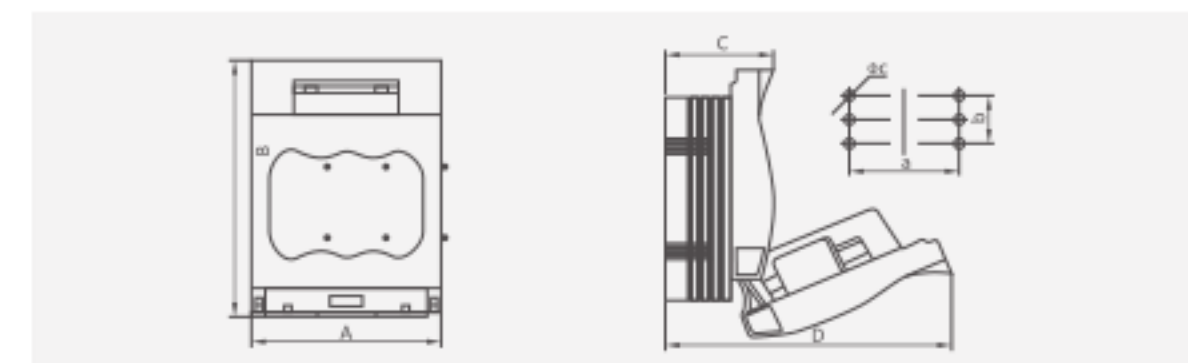
**Fuse**  
**YCHR17 Fuse Switch-Disconnecter**

Specifications

		160	250	400	630	
Rated voltage (Ue)		660V a.c 380V a.c	660V a.c 380V a.c	660V a.c 380V a.c	660V a.c 380V a.c	
Rated insulation voltage(Ui)		800V	800V	800V	800V	
Rated impulse voltage strength (Uimp)		6kV	6kV	6kV	6kV	
Rated current (Ie)	AC 380V	AC-21B	160A	250A	400A	630A
		AC-22B	160A	250A	400A	630A
		AC-23B	160A	250A	400A	630A
	AC 660V	AC-21B	160A	250A	400A	630A
		AC-22B	100A	160A	315A	425A
Rated short-circuit current		50kA (peak 105kA)	50kA (peak 105kA)	50kA (peak 105kA)	50kA (peak 105kA)	



Overall & Installation Dimension



Model	Poles	Overall (mm)				Installation (mm)		
		A	B	C	D	a	b	Φc
YCHR17-160	3P	106	200	83	205	66	25	Φ7
	4P	138	200	83	205	100	25	Φ7
YCHR17-250	3P	185	247	110	295	114	50	Φ11
	4P	242	247	110	295	172	50	Φ11
YCHR17-400	3P	210	290	125	340	130	50	Φ11
	4P	276	290	125	340	195	50	Φ11
YCHR17-630	3P	256	300	145	360	162	50	Φ11
	4P	340	300	145	360	243	50	Φ11

Specifications

Type	YCH5-160	YCH5-250	YCH5-400	YCH5-630
Rated thermal current	160A	250A	400A	630A
380V AC20/AC21	160A	250A	400A	630A
380V AC22	160A	250A	400A	630A
660V AC20	160A	250A	400A	630A
660V AC21	100A	200A	315A	425A
660V AC22	100A	160A	315A	315A
Matched fuse	NT00	NT1	NT2	NT3
Rated current (A)	20, 25, 32, 35, 40, 50, 63, 80, 100, 125, 160	80, 100, 125, 160, 200, 224, 250	125, 160, 200, 224, 250, 300, 315, 355, 400	315, 355, 400, 425, 500, 630